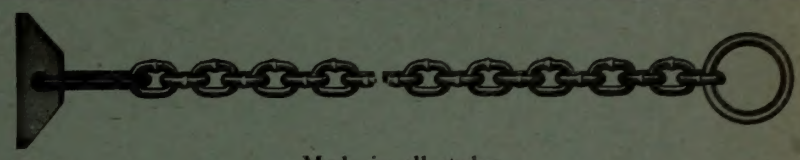
Vol. 37 Toronto, January 1, 1917 No. 1

Canada Lumberman
and Woodworker

Dart Union Pipe Couplings

LESSEN MAINTENANCE COSTS

Your Jobber Sells Them.



Made in all styles

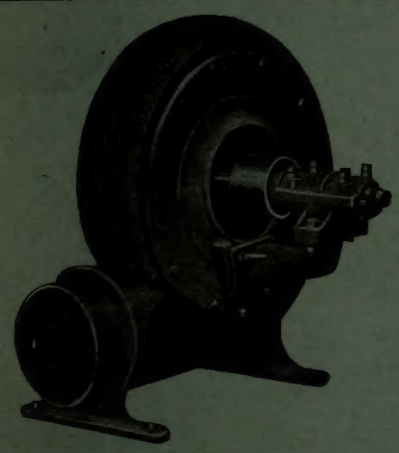
Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.



Canadian Blowers and Exhausters

For forced draft with boilers, for ventilating, for shavings exhaust systems, or for hollow blast grates.
Made strong and substantial, with ring oiling bearings.

Canadian Blower & Forge Co., Limited
KITCHENER, ONTARIO
(Formerly Berlin, Ont.)

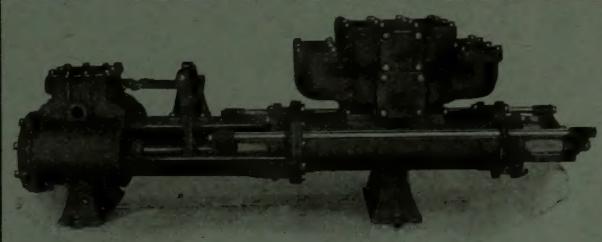
GENUINE "TURBROS"

Balata Belting

Waterproof and Stretchless.
The best belt for sawmills.

Manufactured and guaranteed by

Turner Bros. Canada Limited
Montreal



WHEN IS A PUMP NOT A PUMP?

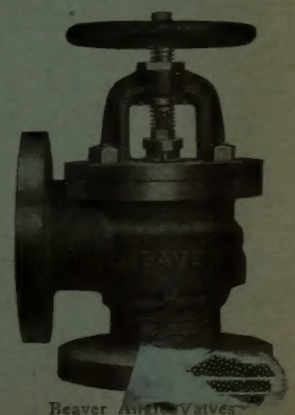
When its efficient service is not to be relied on.
It will pay you to get acquainted with **REAL PUMPS**
as built by

The Smart-Turner Machine Co., Limited
HAMILTON - CANADA

Morrison's "BEAVER" Valves

For high pressure steam uses our "Beaver" valves will fill every requirement perfectly. "Beaver" Globe Valves, Check Valves, Angle Valves, and Cross Valves are made in sizes 1½-inch to 3-inch, all bronze, and sizes 2½-inch to 10-inch iron or semi-steel body, bronze mounted. The Angle Valve illustrated is constructed with outlet under level of seat, leaving no pocket where water may lodge when valve is closed. Can be furnished in stop or adjustable check pattern. Write for complete description and prices of "Beaver" Valves and any of our lines of Brass Goods.

The James Morrison Brass Mfg. Co., Limited
93-97 Adelaide Street West, TORONTO

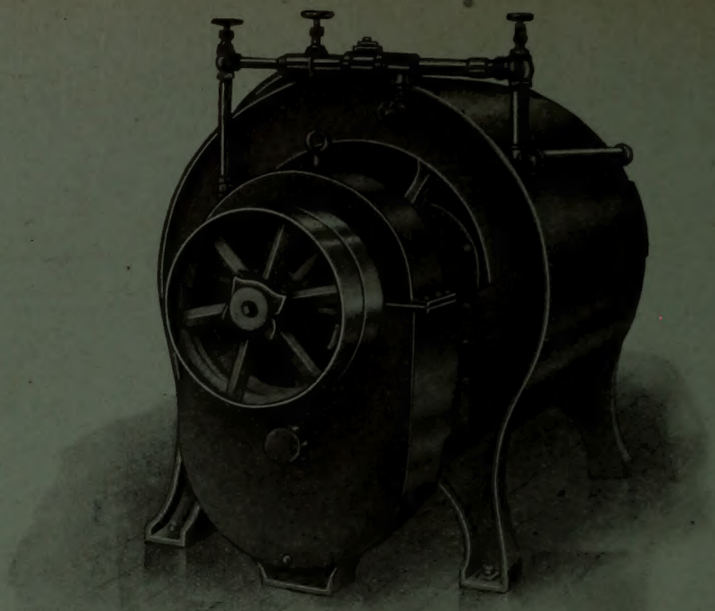


Beaver Angle Valves
MADE IN CANADA

Alphabetical Index of Advertisers, Page 56 **Classified Directory to Advertisements, Page 64**

P. M. Rotary Diaphragm Screen

using Standard Slotted Plates same as a Flat Screen



For Sulphite, Sulphate, Ground Wood and Paper Stock

We also manufacture

Pulp Grinders

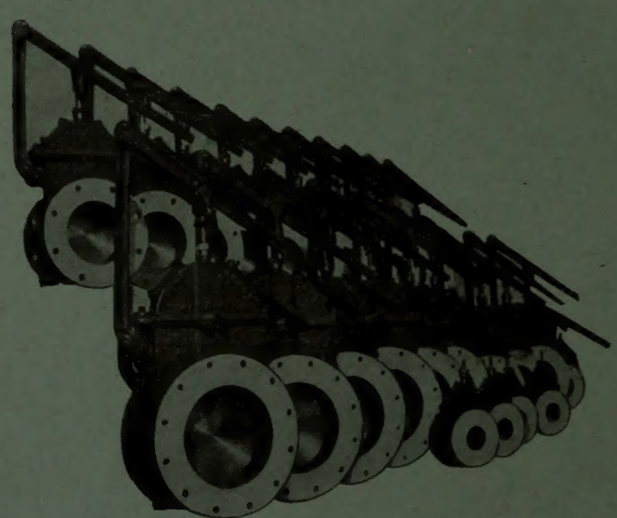
Paul Rotary Sulphur Burners

Pulp Stone Truing Tools

Sulphite Bronze Fittings, etc., etc.

"Record Improved" Quick Opening Gate Valve

with Patented Clean Outs



Made of Cast Iron, Bronze and Acid Resisting Metal

Specifications and prices on request

Canadian Pulp Mill Machinery Co.

Limited

18 Tansley Street, MONTREAL

Bartram Brothers, Ltd.

Wholesale Lumber

OTTAWA :-: CANADA

SPECIAL
100,000 Ft. 1 x 4 x 6/16 Dry Merchantable Spruce

Pine Spruce

Lath Shingles

FOR SALE: Standing Timber, in Large or Small Blocks and Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Wood Machine for 22-in. wood.

1 Edger for ripping dry lumber, installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

The Parry Sound Lumber Co., Limited, 26 Ernest Ave. Toronto, Can.

Geo. Gordon & Co., Limited

Cache Bay - Ont.

Manufacturers of

RED and WHITE PINE

White Pine Timber in Stock:

6 x 8	—	10/16'	—	50,000'			8 x 10	—	12/16'	—	40,000'
8 x 8	—	12/16'	—	30,000'			10 x 10	—	14/16'	—	130,000'
6 x 10	—	12/14'	—	6,000'			12 x 12	—	10/16'	—	130,000'
				4 x 10	—	10/16'	—	60,000'			
				4 x 12	—	"	—	80,000'			
PLANING MILL				2 x 12	—	"	—	100,000'			DRY KILN

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

LONGFORD HEMLOCK

Start the New Year by replenishing your yard with Longford Hemlock. We have all sizes in stock in good shipping condition.

HARDWOOD

4/4 No. 1 Com. Better Basswood, 27,562 ft.
4/4 No. 2 and 3 Com. Basswood, 49,665 ft.
4/4 No. 1 Com. and Better Birch, 69,792 ft.
4/4 No. 3 Com. Birch, 74,715 ft.
4/4 No. 2 Com. and Better Birch 43,054 ft.
5/4 No. 1 Com. and Better Birch, 30,022 ft.
6/4 No. 1 Com. and Better Birch, 14,079 ft.
8/4 No. 1 Com. Birch, 32,550 ft.
4 x 4 No. 2 and 3 Com. Birch, 7,492 ft.
4 x 6 No. 2 and 3 Com. Birch, 12,420 ft.
4/4 Mill Run Maple, 48,650 ft.
4/4 No. 1 Com. and Better Ash, 7,514 ft.
4/4 No. 2 and 3 Com. Ash, 27,670 ft.
4/4 No. 1 Com. and Better Soft Elm, 7,425 ft.
4/4 No. 2 and 3 Com. Elm, 7,875 ft.

Write for prices.

The Long Lumber Company
HAMILTON, ONT.

Nashwaak Pulp and Paper Company
ST. JOHN, N. B.

Manufacturers of

BLEACHED SULPHITE & LUMBER

(Successors to Edward Partington Pulp and Paper Co., Limited)

HIGH GRADE

MUIR, KIRKPATRICK & SHARPE

1325-8 Traders Bank Building

TORONTO - - - CANADA

Everything in Lumber

WHITE PINE, RED PINE, JACK PINE,
SPRUCE and HEMLOCK
LATH, SHINGLES, POSTS and TIES

LUMBER

Murray & Gregory, Limited

Head Office:
ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

SAW MILLS

St. John, N.B., St. Camille and Lake Frontier, Que., cutting SPRUCE and PINE Lumber for British, United States and Canadian Markets.

Also

LATH, SHINGLES, PULPWOOD and RAILWAY TIES

Manufacturing and Grading Right

Trade *Mark*

Address all enquiries to our Head Office, ST. JOHN, N. B.

JOHNSON'S
Veterinary Remedies

are the surest, the most economical and the best medicines with which to equip your stables. They have been on the market for twenty-five years and still retain their superiority over all others.

Johnson's Horse Liniment No. 1	Per Gal.	$5.50
Johnson's Horse Liniment No. 1	Quarts, Per Doz.	16.00
Johnson's Horse Liniment No. 1	Pints, Per Doz.	9.00
Johnson's Horse Colic Remedy	Per Gal.	6.00
Johnson's Horse Colic Remedy .. Quarts (8 Doses each)	Doz.	17.00
Johnson's Horse Colic Remedy Pints (4 Doses each)	Doz.	9.00
Johnson's Veterinary Healing Ointment (Gall Cure)		
....2 lb Tins ... ... each 2.25	Doz.	24.00
¼ lb. Tins	Per Doz.	3.50
Johnson's Concentrated Condition Powders, 1 lb. Pkgs.	Doz.	4.00
Johnson's Horse Worm Powders, 1 lb. Pkgs.	Per Doz.	2.50
Johnson's Purging Balls	Per Doz.	2.50
Johnson's Antisepting Dusting Powder (For Drying and Healing Sores)	Per Doz.	8.00

Our Family Van Remedies are as follows:—

Pine and Tar Cough Syrup	Big 4 Liniment
Purgative Pills	X Ray Liniment
Little Liver Pills	Cholerine Mixture (Diarrhoea)
Porous Plasters	Headache Powders
Stomach Bitters	Sarsaparilla
Laxative Cold Tablets	All Healing White Ointment

All Drugs and Patent Medicines at Market Prices.

Mail orders solicited — Prompt shipments made.

A. H. JOHNSON WHOLESALE DRUGGIST

Collingwood, Ontario

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1", 2" and 3" to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson
Chapleau, Ontario

Chicago Lumber & Coal Co.
Manufacturers

General Offices: EAST ST. LOUIS, ILLS.

In dealing with us you secure the following ***advantages:***

The finest long and short leaf Yellow Pine.
Genuine Louisiana red gulf Cypress and Arkansas White Oak.

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask LOUIS WUICHET

Room 716 Railway Exchange, CHICAGO, ILLINOIS

BASS WOOD

We offer for immediate shipment—
1" and 1½" Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—
1 x 8½" 1 x 9" and wider
1 x 6 and 7" 1½" to 4"

SPRUCE BASSWOOD
ASH HEMLOCK and PINE

HART & McDONAGH
513 Continental Life Bldg.
Phone Main 2262
TORONTO

Watson & Todd Limited
OTTAWA

RED PINE WHITE PINE
SPRUCE

SEND US YOUR ENQUIRIES

The
Harris Tie & Timber Co.
Ottawa - Canada

Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

WE SELL YOU

Lumber, Lath, Shingles

We make a specialty of Hemlock Billstuff, and have the best assortment on the Georgian Bay. Our yards are unequalled for drying lumber.

All stock matched or sized, if required.

Our long experience is the best recommendation of our knowledge of what to ship you on that next order.

Phone us your requirements

McGIBBON
LUMBER COMPANY
Established 1855
Penetanguishene, Ont.

Fraser Bryson Lumber Co., Ltd.

Office, Castle Building 53 Queen St. Ottawa, Can.

Wholesale Lumber Dealers and Selling Agents for

Fraser & Co.

Mills at

DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

Head Office and Mills at:
St. Pacome, Que., Canada
On I. C. Ry. 75 Miles East of Quebec City

Also Mills at:
Crown Lake, Powerville Riv. Manie
On Nat. Transcontinental Ry.

Ask your dealer if he is supplying you with

LUMBER

cut from Horseshoe Logs

Manufactured by

The C. Beck Manufacturing Co., Limited

Penetanguishene, Ont.

Stock and milling facilities unsurpassed

"WE AIM TO SERVE YOU WITH THE BEST"

A Good Parcel Deserves Good

WRAPPING

Good Furniture Needs Good

CRATING

Our four mills can supply your every want in **SPRUCE LUMBER.** The above view shows a section only of stock on hand at our Mill No. 1. Our Electric Resawing and Dressing Mill turns out the best work in Canada. If you want Pine or Spruce Lumber for any purpose, a postal card will place our Monthly Stock and Price List on your desk. We also manufacture Spruce Lath and Full Count White Cedar Shingles—

"BEAVER" BRAND

Bathurst Lumber Co., Limited

BATHURST, N.B.

CANADA

RIGHT GRADES
QUICK SHIPMENTS

Canadian Western Lumber Co.

FRASER MILLS, B.C.

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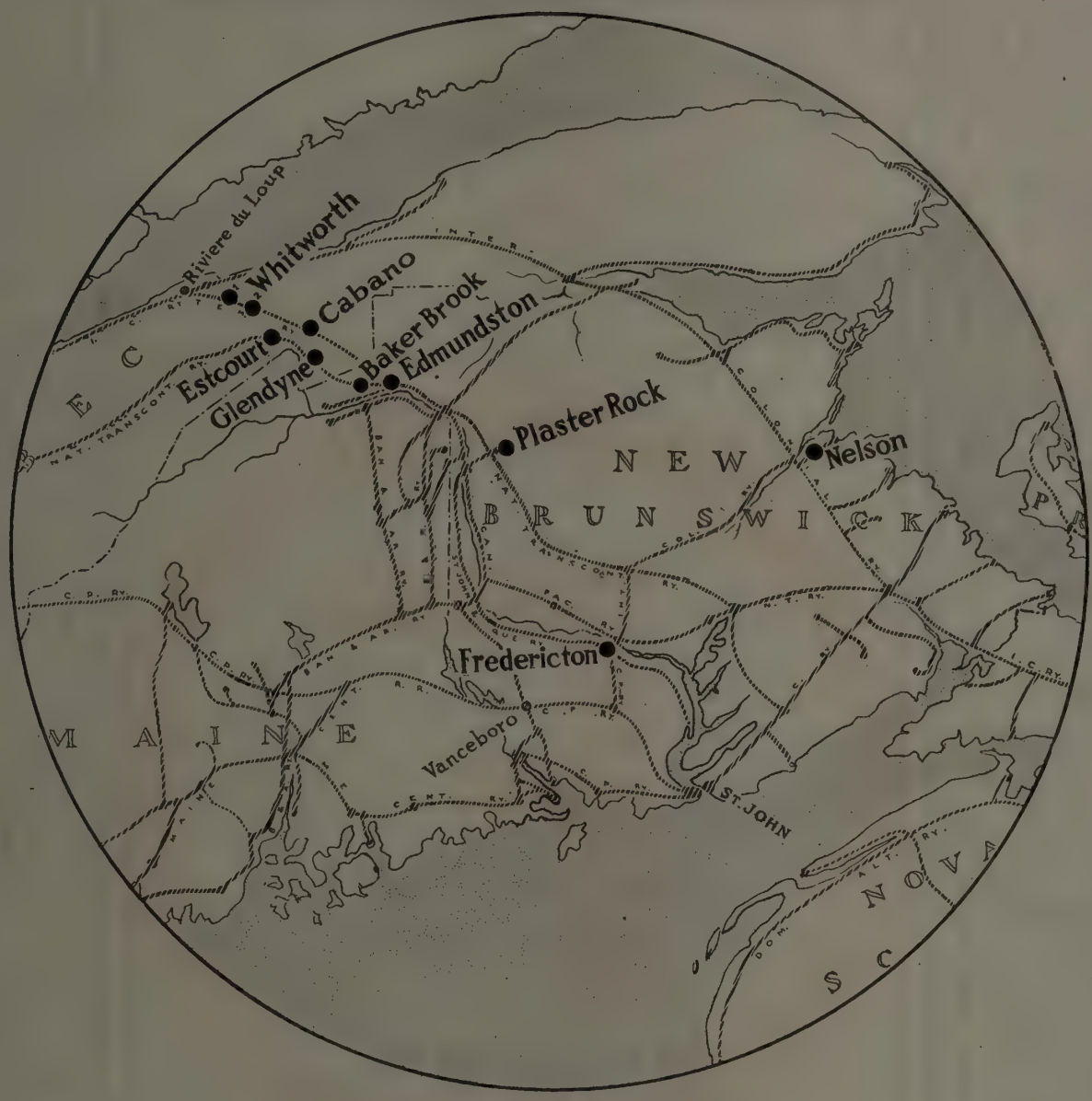
ALBERTA
A. Montgomery

SASKATCHEWAN
E. M. Simonson

MANITOBA
Brandon—G. D. Cookson
Winnipeg—H. W. Dickey

Ten Band Mills to Serve You



Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

Fraser Limited, Fredericton, N. B.

ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

JOHN McKERGOW, President
W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St.
Montreal Office: 759 Notre Dame St., W

James P. Grant
John K. Campbell

Grant & Campbell

Manufacturers of
SPRUCE, HEMLOCK TIMBERS AND PILING AND LATH

Prices promptly given on all enquiries.

New Glasgow, N. S.

General Mercantile Co., Limited

WHOLESALE LUMBER

B.C. FOREST PRODUCTS

922 Metropolitan Building, Vancouver, B.C.

Lath Wanted

We are Buyers of
ALL GRADES
WHITE PINE, SPRUCE and HEMLOCK LATH

Will contract for entire output and pay spot cash

Send full particulars as to grade, quantity and prices

FRED. J. STONE
DETROIT - - - MICH.
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Being next door to the Patent Office, we have personal interviews with Examiners, thus earlier allowance of your Patents. We have access to all Records and solicit the business of Manufacturers, Engineers, and others who realize the advisability of having their Patent business transacted by Experts. Send for our Booklet, etc.

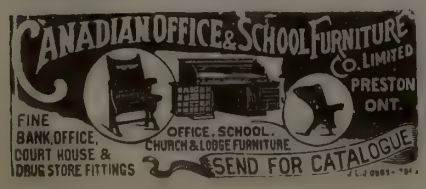
HAROLD C. SHIPMAN & CO.
Reg. Patent Attorneys Ottawa, Canada

BUNDLING WIRE

For Hardwood Flooring

Tie it with wire. The contractors like it because the bundles never break in handling. Write for quotations.

LAIDLAW BALE-TIE CO., Ltd.
HAMILTON, ONT.


CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

SPECIALS

10 cars 4/4 No. 2 Com. & Better Birch
2 " 6/4 No. 1 " " "
2 " 8/4 No. 1 " " "
2 " 10/4 No. 1 " " "
1 " 12/4 No. 1 " " "
10 " 4/4 No. 3 Common. "
2 " 1x4—6/11 ft. Mill run Spruce 50/60% 10 and 11 ft.
1 " 1x6 up Mill run Spruce
½ " 1x4 & 5 " " "
½ " 1x4 up " " "

Also full line
4/4 and 8/4 White Pine and
4/4 Red Pine

Get in touch with us for prices

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

705 Excelsior Life Building
Toronto

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood, Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON
QUEBEC

HAEBERLE LUMBER CO.
LUMBER AND TIMBER
White Pine, Norway, Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim, Mill Work
NIAGARA FALLS, N.Y.

WHOLESALE DEALERS
Eastern and Southern Lumber

We are at all times in the market for dry WHITE PINE, DIMENSION SPRUCE, SPRUCE BOARDS, HEMLOCK BOARDS, LATH and CLAPBOARDS.

Advise us of your Market Prices and Stocks

A. H. Richardson Lumber Co.
176 Federal Street, BOSTON, MASS

WHOLESALE LUMBER

J. A. LAFERTÉ
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MONTREAL

Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion

"SALADA"

Send for samples and prices.
SALADA TEA CO. TORONTO

SPECIALTIES
Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie

Pine and Hardwood

Lumber

Lath and Shingles

North Tonawanda, N.Y.

Timber Estimates

Our reports are the result of the honest work of experienced men. We deal in facts.

JAMES W. SEWALL
OLD TOWN, - MAINE

TIMBER ESTIMATES
Appraisal of timber lands, timber maps, logging efficiency reports, planting. Maximum of accuracy in minimum time and at minimum expense.
D. E. LAUDERBURN, Forest Engineer
Rm. 1233, 156 Fifth Ave., New York, N.Y.

A. D. McINNIS
Is prepared to make reports, and estimates on all classes and kinds of Timber, together with Maps, and cost of operating, also sell or buy for you.
25 years practical experience in woods operations and cruising.
CACHE BAY, ONTARIO

PHILIP T. COOLIDGE
FORESTER
Technical training and ten years' experience. Timber Estimating and Mapping. Supervision of Lumbering Contracts. Surveying. Forest Planting.
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Cant & Kemp
52 St. Enoch Square
GLASGOW
Timber Brokers
Cable Address, "Tectona," Glasgow
A1 and A B C Codes used

FARNWORTH & JARDINE
Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth, Liverpool, England

WE ARE BUYERS OF
Hardwood Lumber
Handles
Staves Hoops
Headings
James WEBSTER & Bro.
Limited
Bootle, Liverpool, England
London Office
Dashwood House 9 New Broad St. E. C.

"Well Bought is Half Sold"

We offer the following attractive lots in Dry Hardwoods—

75 M.' 4/4 No. 2 Com. and Btr. Beech
4 M.' 5/4 1st. and 2nds. Birch
11 M.' 6/4 " " "
18 M.' 12/4 " " "
3 M.' 16/4 " " "
2 cars 4 x 6 Birch Hearts
3 cars 12/4 No. 1 Com. and Btr. Hard Maple
2 cars 8/4 " " " " "
5 cars 4/4 No. 3 Com. Maple and Beech
2 cars 4/4 No. 2 Com. and Btr. Black Ash
3 cars 4/4 No 3 Com. Black Ash
2 cars 4/4 No. 3 Com. Elm
22 M.' 16/4 No. 1 Com. and Btr. Soft Elm
66 M.' 8/4 " " " " "
6 M.' 16/4 Good Hickory
2500' 8/4 " "
1 car 8/4 No. 1 Com. and Btr. White Oak

We will be glad to quote the above upon request.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine
Hemlock
Hardwood } **LUMBER**

712-20 Traders Bank Bldg., Toronto, Ont.
Mills: Byng Inlet, Ont.

PETRIE'S
MONTHLY LIST
of
NEW and USED
WOOD TOOLS
for Immediate Delivery

Mortisers
M190 Cowan hollow chisel.
Galt upright, compound table.
Fay upright, graduated stroke.
No. 1 Smart foot power.
No. 2 Smart foot power.

Sanders
24" Fay double drum.
18" Crescent disk, adjustable table.
12" C.M.C. disk and drum.

Moulders
13" Clark-Demill four side.
12" Cowan four side.
10" Houston four side.
6" Cowan four side.
6" Dundas sash sticker.

Wood Planers
30" Whitney pattern single surfacer.
26" revolving bed, double surfacers.
26" revolving bed, single surfacer.
24" Major Harper planer and matcher.
24" Dundas single surfacer.
24" revolving bed, single surfacers.
24" single surfacers, various makes.
22" stationary bed surface planer.
18" Little Giant planer and matcher.

Saw Tables
Preston variable power feed.
Ballantine variable power feed.
M138 Cowan power feed.
No. 3 Crescent universal.
No. 2 Crescent combination.
Ideal Variety.
12' Defiance automatic double cut-off.
Champion combination wood top.
MacGregor Gourlay power feed cut-off.
7½', iron frame swing.
6' Crescent iron frame swing.
6½' Williams heavy wood frame swing.

Band Saws
42" Fay & Egan power feed.
38" Atlantic tilting frame.
36" Crescent pedestal.
32" Crescent pedestal.
26" Crescent pedestal (2).
20" Crescent pedestal (2).

Clothespin Machinery
Humphrey No. 8 giant re-saw.
Humphrey gang slitter.
Humphrey cylinder cutting-off saw.
Humphrey automatic lathes (6).
Humphrey double slotters (4).

Miscellaneous
MacGregor Gourlay 12 spindle dovetailer.
Fay & Egan 12 spindle dovetailer.
Improved Tyrrell dovetailer.
Oelschlager handle and rod machine.
M80 Cowan dowel machine.
Bench dowel machines, hand feed.
M85G Cowan post boring machine.
M23 Cowan post boring machine.
Elliott single spindle shaper.
New Britain drawer lock machine.
M137 Cowan sash clamp.
Galt blind-slat resaw.
Galt blind-stile borer and mortiser.
Egan sash and door tenoner.
16" Ideal wood lathes (3).
No. 6 Lion universal wood trimmer.
6-nail box nailer, Meyers patent.
20" American wood scraper.
4-head rounding machine.
24" wood frame equalizer.
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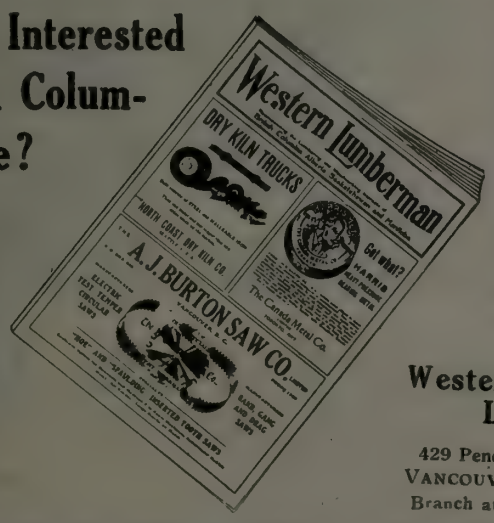

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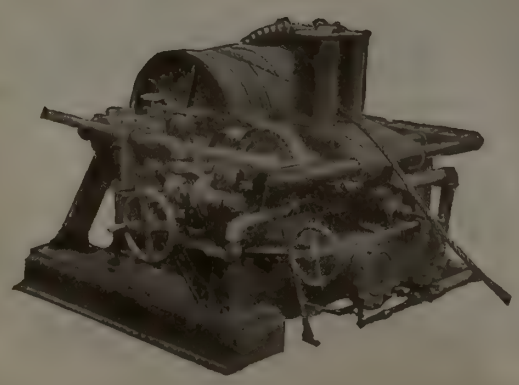

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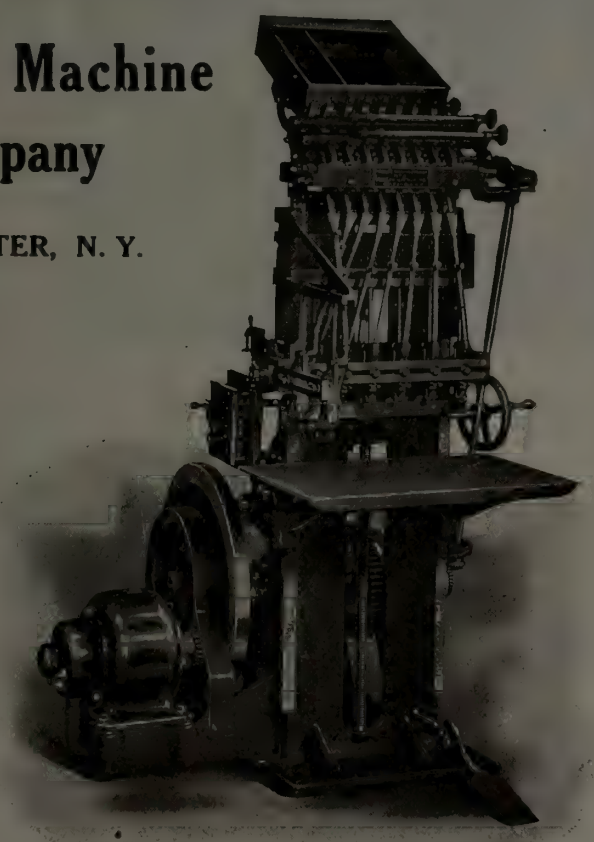

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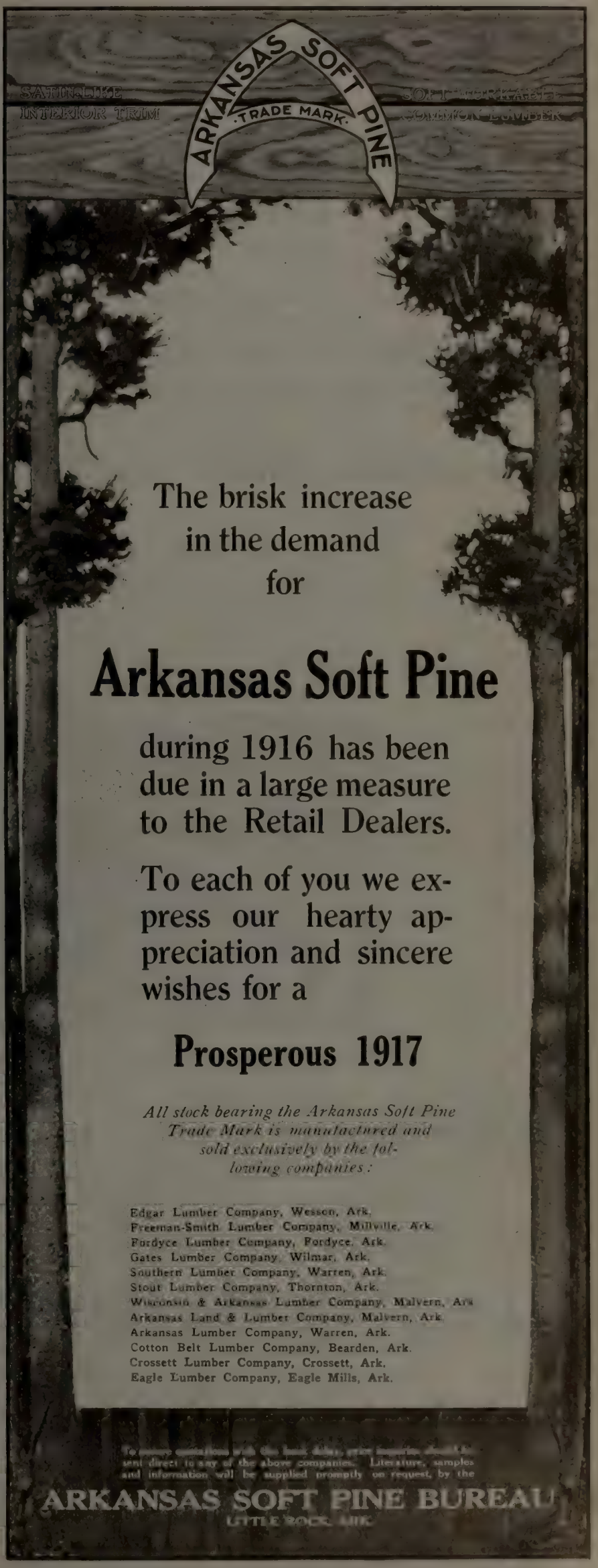

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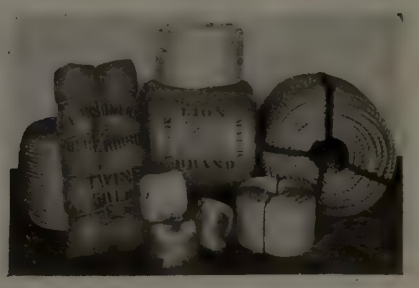

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Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.
Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N. Y., under the Act of Congress of March 3, 1879.

Vol. 37 **Toronto, January 1, 1917** **No. 1**

Vancouver Needs Greater Facilities for Shipment

A lot of excitement and discussion has been stirred up in British Columbia lumber circles in connection with the recent report that an order for 1,000,000,000 feet of lumber for the British Government had gone to San Francisco brokers recently, of which, the report states, British Columbia manufacturers were unable to obtain a share because of the lack of shipping facilities at Vancouver and because of the inability of the manufacturers to supply such a large quantity. No sooner was this report in print than it was ridiculed by Mr. E. W. Hamber, president of the Hastings mill at Vancouver, one of the outstanding British Columbia firms with adequate equipment for making vessel shipments for the export trade. Mr. Hamber criticized the report as ridiculous and untrue, and suggested that no such order had been received from any legitimate source. He also referred to the great size of the reported order, and stated that it would require 250 steamships, carrying 4,000,000 foot cargoes each, to transport such a quantity of lumber by water, and that the average steamer would carry even less than that; concluding, therefore, that, on its face, the order was absurd. In addition, he is reported as expressing doubt as to the ability of British Columbia mills to take care of such an order even if the necessary facilities for making shipment existed.

Mr. Hambers' statements are now severely criticized by Mr. H. H. Stevens, M.P. for Vancouver, who says that, as a matter of fact, the British Government did not expect that there would be 250 ships lying at Vancouver and a billion feet of lumber on hand to be placed in these ships. An order of this kind would be filled over a long period of time. If we had the facilities for supplying and shipping this quantity of lumber the British Government would see that vessels were sent to carry it, as it had done in numerous cases of different classes of goods since the war began. This is Mr. Stevens' answer to Mr. Hamber's criticism that the order was too large to be a bona fide one. Whether the order turns out to be bona fide or not, we are inclined to take Mr. Stevens' point of view, and believe that, with the necessary ability to supply and make shipment on a large scale, a considerable proportion of any such order would come to British Columbia, and, so far as we can appreciate the situation, the matter is a fortunate one to have developed at this particular time, as manufacturers of lumber in British Columbia, some 70 in number, who have not been able to participate in the export trade, are at present petitioning the Harbor Commissioners of Vancouver to provide shipping facilities which will enable them to transfer their product economically to vessels for export shipment.

If the petition of these manufacturers is granted and facilities are established, the port of Vancouver will become a much more important factor in the export lumber trade, and we shall see that trade make great advances. It is important that the matter should be given all the attention possible now, so that British Columbia manufacturers may be in a good position to get in on the large trade with the Allied Governments that is now developing and that is certain to increase enormously after the conclusion of peace. It has been a continual lament on the part of British Columbia lumbermen that so much of the foreign trade has gone to United States firms, and that the export trade has been practically controlled by San Francisco brokers. The creation of adequate shipping facilities at Vancouver will do more than anything else to develop the export trade of British Columbia, and, in the opinion of many manufacturers, will actually enable British Columbia to become a strong factor in connection with all the export markets that are open to the Pacific Coast manufacturers.

System Improves Shingle Packing

The packing of shingles lends itself, like many other apparently simple industrial operations, to remarkable improvement when systematized after thorough study. This point is well illustrated by an article recently published in The Lumberman, of Portland, Ore., which deals with the subject as follows:

In the manufacture of British Columbia shingles one thing that impresses a stranger upon entering some of the mills is the replacement of the Chinese sawyer with the white sawyer; second, the maintenance of the Chinese packer in all cases. It has been found by experience that the white sawyer will saw several thousand more shingles per day on the same machine than the Chinese sawyer, but there may be some question as to whether the increased speed by the white sawyer does not produce a larger percentage of inferior shingles than produced by the Chinese sawyer, in his slow, steady, plodding gait. On the other hand, however, when the Chinese packer performs his work he eliminates all shingles which do not come up to the highest standard of excellence. It will be remembered that when a Chinese packer is instructed to maintain a certain grade it is characteristic of his race that no exceptions be made, irrespective of how slight a deviation is encountered in the shingles offered for him to pack. His mind is inflexible, and he only knows one standard. In this respect the Chinese packer differs from the white packer, who realizes that a very slight deflection does not impair the usefulness of a shingle, but at the same time, in judging strictly from the grading standpoint, the shingles may fall slightly below.

The packing frame used by the Chinese is set horizontal. The packer not only sets the shingle firmly against the end of the frame, but also is particular to see that the edges are set in uniform order, so that the bunch takes on a very symmetrical appearance. The ends and edges are absolutely regular.

It is very seldom that you find a Chinese sawyer with a maimed hand. It is stated that when a Chinese loses a finger he feels he has been degraded, and generally leaves the shingle business. It is also stated that the percentage of waste in the manufacture of British Columbia shingles by Chinese sawyers amounts to considerable, estimated at 8 to 10 per cent., the Chinaman, in his Oriental philosophy, believing it much easier to secure additional cedar blocks than his finger or hand, hence his abhorence of coming in too close contact with the swiftly-revolving saw.

The American plan in packing shingles is to set the frame on an angle of about 30 degrees. The layer farthest away from the packer is

inclined to drop back from the frame, thus making the bunch irregular in appearance on the ends. The speed with which the American packer does his work is considerably greater than the Chinese with his system of packing, and he is inclined to slight the appearance of the bundle in favor of speed.

It is conceded that the position of the American shingle frame enables greater speed to be attained in packing than if the frame was set horizontally, and it would probably take a considerable degree of training to get the American shingle packer accustomed to the horizontal packing frame, but nevertheless it is undeniably a fact that it is easier to produce a more uniform and symmetrical bunch by the use of the horizontal frame than the tilted one.

A Grays Harbor manufacturer, after visiting British Columbia recently, asked one of his packers to pack a bunch of shingles, taking as much time as deemed necessary to produce the highest type of packing. When the bunch was packed the ordinary packed shingle was laid by its side. The comparison was at once very noticeable, and the shingle manufacturer then called in his packers and exhibited to them the high-grade bunch, and suggested that he eventually would expect them to pack all shingles with the same precision and care. He further advised them that he would gradually change the position of the packing frame from its tilted position to the horizontal position. Thus the American shingle manufacturer is increasing not only the standard of manufacturing, but also the appearance of his production.

How Long Will a Metal-Clad Barn Last?

In the December 1st issue of the Canada Lumberman we published a reference to an article which appeared in the Uxbridge Journal, of Uxbridge, Ont., regarding the relative merits of lumber and metal-clad barns. The article was one in which an effort was made to disparage the use of lumber for barns, and was eveidently inspired by the metal interests. We believe that the brief analysis of the question that we published at that time made it amply clear that lumber was the only economical and satisfactory material for a barn, and we are pleased to see our views forcibly championed by the Mississippi Valley Lumberman, which refers to the Uxbridge Journal's article as follows:

"The comparison is neither logical nor convincing. In the first place, any barn that gives service for forty years will probably have outlived its usefulness. The farmer who lives forty years on a farm will be a poor farmer if he does not want to tear down his old barn and build a newer and larger one inside of that time, and has not made much of a success of his vocation. In the next place, it does not seem to have occurred to the writer that he has neglected to provide for the fact that the deterioration of the framework of both barns would be the same, and hence, the metal barn would last no longer than the wooden one. Or, if the framework is to last eighty years in both barns, he has omitted to deduct the cost of the frame from the total cost in his estimate of the amount of yearly depreciation. If he does this, the depreciation on the metal barn would be $9.78 per year, and on the wooden barn $18.18 per year, and even the higher figure is rather cheap rent, or low cost for service. We are inclined to believe that any farmer who could be certain that his barn cost would not be greater than $18.18 per year would not bother about the durability of the material.

"Since the writer of the article is analyzing and comparing, he has overlooked another matter. His estimate of the cost of the two barns gives a cost for the metal-clad barn amounting to $155.75 more than the cost of the wooden barn, and the interest on that amount at 6 per cent. is $9.35 per year, while the saving in depreciation is only $8.40 per year. Thus he is losing 95 cents per annum for forty years if he builds a metal-clad barn, provided his figures on depreciation are correct, which they probably are not. Moreover, if a metal-clad barn has ever been built that lasted eighty years, we doubt if anyone has ever heard of it. On the other hand, we have heard of a number of metal-clad buildings the covering of which has rusted out much more quickly, while there are hundreds of wooden buildings in the East that have lasted more than one hundred years and are still in very good condition.

"Recently we printed a picture of a building that had been covered with metal a few years, and the covering was so badly out of repair that the owners were taking it off and putting hemlock siding in its place. So the matter gently resolves itself down to the facts—that a wooden barn that will last forty years will serve the full purpose for which it was built; that a wooden barn, if properly painted and repainted occasionally (and a metal-clad barn must be painted just as often) will probably last much longer than forty years, if need be, and that it is highly probable that the metal covering of a building will not last any longer than a wooden-covered building, if it will last as long."

The Lumber Situation from a Newspaper's Point of View

The situation existing to-day in the lumber trade and industry is being keenly discussed by lumbermen, and we have published numerous articles about it of late, in which we have dwelt pretty fully upon the curtailment of operations, the scarcity of stocks, the improving demand, and the outlook for higher prices. Our views have been those we have gathered from daily intercourse with prominent lumbermen. That we have not been extravagant in our opinions is borne out by an interesting article which appeared recently in the Toronto Star. A representative of the Star evidently called upon a number of lumbermen in Toronto and summarized their views in an article which goes further than anything we have yet said, but which, with fair allowance for the reporter's unfamiliarity with the subject, gives one a good idea of how the land lies. Without endorsing all that this article says, we reproduce it for the benefit of our readers, as follows:

"An unprecedented scarcity in building lumber and wood for manufacturing and commercial purposes is another link in the chain of high prices which has distinguished the year 1916. According to men in the lumber trade, interviewed to-day, there is no possible hope of relief in the situation, and prices will go on soaring until a staggering height will be reached as early as next summer.

"The trouble is that lumbermen are not taking out a stick of timber from the forests this year. They are literally holding their axes idle because it would cost them so much more to cut the timber that they would stand to lose money on every log. Labor is not only extremely scarce, but it is prohibitively expensive. Lumbermen who formerly considered themselves fortunate to earn $30 a month now demand $45 monthly and their board. The cost of keeping them and the expense of providing fodder for the horses has also increased largely. An estimate places the increased cost of cutting the timber at about 30 or 40 per cent.

"If the manufacturer did cut his timber, however, his troubles would not be ended. When he looks ahead into the future he finds that the cost of sawing his logs and preparing them for the market will probably be increased so much that the cost would be too high to permit him to work on it, and all his timber would be left on his hands.

"The other angle of the situation is that lumber stocks have practically been depleted, due almost exclusively to the war demand, and there is no supply of either cut or uncut timber on hand. Spruce and hemlock are the woods affected most, because of the great demand for them. They are the woods that enter so largely into house and building construction—for boards, laths, joists, beams, frames, and a multitude of other uses.

"In addition to regular building operations, which are perhaps more extensive than last year, the munitions factories have caused a demand for the two woods named. Their factories have been extending themselves on every hand. Ammunition boxes, of which an incredible quantity are used for transporting the products of the factories, are made almost entirely of spruce, with birch ends or trim-

mings. Birch also came into large demand as a substitute for walnut for rifle butts, saddle trees, and other war materials. The stocks of these woods have been almost cleaned off the markets.

"Prices have climbed steadily in the past two or three months, and, in view of the situation, it is almost an axiom that they will not stop rising this year, and perhaps the next. Generally speaking, an advance of from $1 to $4 a thousand feet, according to the variety of timber, has been made in the last two months. The percentage on all grades would fall between 5 and 10 per cent."

A Plea for Conservation

In an address on the chemical and industrial possibilities of Western Canada, delivered at Vancouver before the first meeting of the Canadian (Pacific) branch of the British Society of Chemical Industry, Dr. R. H. Clark, M.A., Ph.D., of the University of British Columbia, made the following reference to the forest wealth of British Columbia: "Lumbering is our third greatest industry. The United States forest service has estimated that in from twenty to thirty years their forests will be depleted. In Canada and the United States we use 500 feet per capita per annum against 60 feet per capita in Europe. A single issue of a New York newspaper's Sunday edition requires fifteen acres of forest. The waste of our timber resources is due to fire, careless logging, wasteful mill operations, and overproduction. In all, it is claimed 75 per cent. of our forest products are wasted, 20 per cent. of the log (the upper part) is left in the woods to rot or burn, and one-third of the slab residue is consumed in refuse burners. The importance of the forests arises not solely from their being the source of our timbers but, still more important, because of their bearing upon our water supply. In forest cover not only is erosion impossible, but the rains evaporate more slowly, the snows melt less rapidly, the run-off is gradual, floods cease, and streams are available for water power. As Mr. Pinchot says, 'When the forests fail, every man, woman, and child will feel the pinch.' The problem has been solved in Europe. The forests of Germany are 300 per cent. better than seventy years ago, and the yield per acre sevenfold what it was. Let us agitate to have the same problem solved here while there is plenty of time."

Doesn't Believe in Higher Rates on Dressed Lumber

The proposition that dressed lumber should take higher rates than rough lumber seems to have received a final death-blow in the United States. In a brief submitted to the Interstate Commerce Commission by the Central Freight Association, trunk lines, and New England carriers the following statement is made: "Dressed lumber should not take rates higher than rough lumber. This suggestion that dressed lumber should take higher rates than rough lumber was based upon the commission's decision in the Eastern wheel case, and rests upon the theory that in making rates on lumber products the rates on rough lumber should be taken as the basic rates, and higher rates established on articles made from rough lumber depending upon the degree of manufacture. A logical application of this principle would necessitate higher rates on dressed lumber than upon rough lumber, in view of the additional treatment which the lumber has received at the mill. It is not necessary, however, to dwell upon this suggestion, since at the hearing there was no testimony whatsoever in favor of higher rates on dressed than on rough lumber. It seemed to be uniformly admitted by shippers and carriers alike that to differentiate between rough and dressed lumber for rate-making purposes was out of the question. The value of rough lumber is as great or greater than that of dressed lumber. Dressed lumber loads as heavily and all the transportation conditions seem to be the same."

United States will Encourage Export Trade Combinations

A report has been presented by the Federal Trade Commission of the United States upon the export lumber trade of that country, which is one of the most entertaining and practical reports we have yet had the pleasure of reading. Briefly, it may be said that the chief point of the report is an argument in favor of the creation of combinations among manufacturers for handling their export trade. This is a proposition that has been worked out in many parts of the country, chiefly along the west coast and in the gulf and Southern Atlantic exporting districts. All of these efforts have been handicapped by uncertainty as to whether such combinations are legal. At the last session of Congress an effort was made to render these combinations legal by the passage of the Webb bill, which unfortunately was not carried out, and was left over for a subsequent session. It is pretty reasonable to expect, in the face of the report now presented, that some measure of this nature will be put through in the very near future.

The death of Mr. Robert Sissons, superintendent of Price Brothers & Co.'s mills, is reported from Quebec. Mr. Sissons was 68 years of age.

From the Canada Lumberman of Thirty-five Years Ago

Toronto, January 10th, 1882.—Since the new year came in I have been endeavoring to ascertain the amount of lumber consumed in this city during the year 1881, and I find it extremely difficult to determine the quantity with any degree of certainty. It is comparatively an easy matter to give you the quantity brought here and intended for local consumption, but not so accurately can I determine the quantity transhipped to points east and west. However, after due consideration, I am led to the conclusion that upwards of 55,000,000 feet has been consumed in this city and the adjoining municipalities of Parkdale and Yorkville. In coming to this conclusion I estimate that the various yards throughout the city closed up the year with about the same stocks on hand as held by them at the beginning of the year, and in this surmise I think I am not far wrong, although the stock of joisting and scantling now on hand is much lighter than has been held here for some years past; but the deficiency in that respect is doubtless made up by other kinds of lumber.

Prices for car load lots of joisting and scantling up to 16 feet lengths are fully $1 per M. better than obtained during the months of September and October, and the fact is, dimension stuff can scarcely be obtained at all, and I question if there is a single car load on track here to dispose of.

Cherry and other hardwoods have arrived more freely of late, but not sufficient to glut the market in any sense. Black ash obtains ready sale if the quality is good. This wood has been rapidly coming into favor as a finishing wood, whereas, a few years ago, it was only esteemed of value for barrel hoops and fence rails. It will now sell readily for $14 to $16 per M., and good white ash for $20 to $25, the latter figure if suitable for carriage work. In fact all kinds of lumber, hard or soft, if quality and manufacture are right, will command ready sale at fair figures.

Quotations from Yards.

Mill cull boards and scantling	$10.00
Shipping cull boards, promiscuous widths	12.00
Shipping cull stocks	13.00
Scantling and joist, up to 16 feet	13.00
Scantling and joist, up to 18 feet	13.50
Scantling and joist, up to 20 feet	14.00
Scantling and joist, up to 22 feet	13.50
Scantling and joist, up to 24 feet	14.00
Scantling and joist, up to 26 feet	15.50
Scantling and joist, up to 28 feet	16.50
Scantling and joist, up to 30 feet	18.00
Scantling and joist, up to 32 feet	20.00
Scantling and joist, up to 34 feet	22.50
Scantling and joist, up to 36 feet	25.00
Scantling and joist, up to 38 feet	30.00
Scantling and joist, up to 40 to 44 feet	35.00
Cutting up planks to dry	20.00
Cutting up boards to dry	18.00
Sound dressing stocks	16.00
Picks Am. inspection	26.00
Three uppers, Am. inspection	35.00
B. M.	
½ inch flooring, dressed	30.00
½ inch flooring, rough	14.00
¼ inch flooring, dressed	25.00
¼ inch flooring, undressed	14.00
1 inch flooring, dressed	20.00
1 inch flooring, undressed	15.00
1/8 beaded sheeting, dressed	20.00
Clapboarding, dressed	12.50
XXX sawn shingles, per M.	2.80 to 3.00
XX sawn shingles, per M.	2.75
Sawn lath	1.80

Westholme Lumber Case to Be Fought Further

Further litigation is in prospect in the case of the Bank of Montreal vs. Capt. Cecil Banbury. The Court of Appeal has allowed the appeal of the Bank of Montreal from the verdict awarded Capt. Banbury a few months ago, who sued the bank to recover $125,000, which amount he had lent on a mortgage to the Westholme Lumber Company on alleged inducement and recommendation of the bank's branch manager at Victoria, B.C. The investment became worthless when certain water power privileges were cancelled.

Canada's exports of forest products during the twelve months ending October were valued as follows:—1916, $53,899,809; 1915, $47,808,698; 1914, $42,621,760.

Labor Shortage Troubling Trade

Ontario and British Columbia Manufacturers Report Great Difficulty—A Critical Situation at Hand

At a recent meeting of the Lumbermen's Section of the Toronto Board of Trade an interesting address was delivered by Mr. G. B. Nicholson, of Austin & Nicholson, extensive manufacturers of lumber, railroad ties, etc., Chapleau, Ont. Mr. Nicholson's remarks were of an extemporary nature, but included a forcible discussion of conditions now prevailing in the North country and a reference to the general industrial situation in Canada. The most important point brought out by Mr. Nicholson was the fact that at present it is extremely difficult to conduct woods operations in Northern Ontario on account of the scarcity of labor. Conditions have become so acute that his firm has abandoned everything in the way of the production of railway ties, pulpwood, etc., and is taking out only a sufficient quantity of logs to keep the plant from being entirely idle. Conditions in the North country were typical of those in all other parts of Canada.

A very serious situation was facing this country on accocunt of lack of co-ordination or organization with regard to our man power. "The conclusion has been forced upon me," Mr. Nicholson said, "to a degree that makes it impossible for me to get away from it, that we are actually facing a very serious condition on account of our inability to produce what the country requires to live on, unless something can be done to get the man power and the woman power of the country to see the situation exactly as it is. Before the war the ratio between production and consumption of necessities had been coming so close together that soon we would not have been producing enough to live on. In 1915 production increased. In 1916, however, we went back, and, as I see it, the men upon whom the productive industries of Canada depend have no adequate conception of the responsibilities they have towards the industries of the country. It is becoming an impossibility to get men who will take any interest whatever in the work that they have on hand. I have had, during the past week, an opportunity of discussing these subjects with men who are more or less intimately connected with the agricultural industry of Canada. They tell me that they know many of the largest farmers who are actually disposing of their stock, closing up their buildings, and going out of business. The point that I feel we should all endeavor to appreciate is that it is the duty of men who are in a position to understand these things to seek out all possible remedies and to apply them. We are all far too much inclined to say that the government ought to attend to these matters. The elected representatives can do simply what the people permit them to do. My conviction is that unless the business men of this country take hold of the question of organizing our man power and our woman power we will come, before the end of 1917, to a position that will be almost intolerable. It is becoming increasingly more difficult to live day by day.

"I know from my own small business that the increased cost of production is 75 per cent. as between 1915 and what it is to-day. The hard part of it is that I am convinced that we are not short of men in Canada to-day if our men would apply themselves and if we could get men into those industries in which they are needed and their places taken by women. We have plenty of men for everything, but so far they have not come to a point where they begin to realize what the conditions are that the war has brought upon us."

The Situation in British Columbia.

Mr. L. B. Beale, British Columbia Lumber Commissioner at Toronto, followed, saying that he believed Mr. Nicholson had touched the vital point of the case so far as they were concerned in the west of Canada. So many men had been taken out of the West from industries requiring man power that the shortage of labor was the most serious thing confronting them to-day. The trouble was that men were being used in the wrong industries, industries that were not so vital to the well-being of the whole country as those that were being deprived of men.

Interior mills were finding it difficult to obtain labor. One of them would get together 40 or 50 men to go into the woods and another mill representative would come along offering higher wages and take them all. The original employer would then go still higher. Practically speaking, they were simply swapping men from time to time. Recently a few more men had come into British Columbia from the prairies, and probably a number of the interior mills would be able to produce a fairly respectable cut this winter. If they did not, the mills in the Northern States would step in and invade the prairie markets. The prairie to-day was a good purchaser of lumber. He believed that the Prairie Provinces would be asking the British Columbia mills next spring and summer for immense quantities of lumber.

On the coast of British Columbia the labor situation was bad. They had not a casual floating population to send into the woods as they had in other parts of Canada. Moreover, recruiting had taken what few men they had. It was really now a question whether the men who were being recruited on the coast of British Columbia were doing as much for the Allies by joining forestry battalions as if they stayed at home and produced materials required by the Allies. By taking away these men we were opening up the markets of the Allies to foreign trade. If the Allied governments could not get the lumber they required within the Empire they would have to get it elsewhere. He felt convinced that every man who could be taken from Western Canada had already been taken.

The trade situation generally in the West was good. Vancouver to-day was the livest city west of Winnipeg. During 1916 the lumber manufacturers of British Columbia had been making a strong attempt to interest the lumber dealers of Eastern Canada in British Columbia products to a greater extent than before. Such figures as were available for 1916 showed that Eastern Canada had taken about 15,000,000 feet more of British Columbia lumber than during 1915. A great deal of that lumber was finish material. There was a slight increase shown in the timbers, but the bulk of it was in finish and upper grades. The manufacturers of British Columbia believed that they had a very large market in Eastern Canada.

The question of transportation was the really vital one. The freight rate, though high, did not prevent the British Columbia manufacturer from getting into the Eastern markets. The distribution of the product, once it reached Eastern Canada, was a very important problem, which they would have to solve more effectively. Ships were being built on the Pacific Coast to-day which would carry about 1,500,000 feet of timber or lumber each. These ships were for the Pacific-Atlantic trade. They expected to be able to put lumber into Montreal and Toronto on a freight rate about equal to the present rate between Vancouver and Winnipeg, namely, $10 per thousand feet. If they were able to do this they would solve one of their greatest difficulties. Moreover, the trade would be remmerative both to the mill and to the dealer at the eastern end.

The lumber manufacturers of British Columbia were more than ever determined to meet the requirements of the Eastern market. They were giving more attention to better and selective grading, to more accurate sawing, and to better dressing, and endeavoring to carry on their business in every respect in such a way as to earn the commendation of the Eastern trade and to obtain its business.

Canada's Foreign Trade in Timber, Lumber, Etc.

Canada's exports of forest products during the twelve months ending September were valued as follows: 1916, $53,952,950; 1915, $47,241,070; 1914, $42,191,112; 1913, $44,026,986.

Exports of wood and manufactures of wood during the twelve months ending September were valued as follows:

	Twelve months ended September.			
		1916.		
Articles exported.	1915.	Total.	To U.Kingd'm.	To U.S.
Logs	$1,257,022	$ 986,725	$ 68,324	$ 917,548
Lumber—Deals, pine	1,288,744	1,455,038	1,413,041	38,380
Deals, spruce and other	9,451,938	9,333,256	7,961,978	318,661
Laths, palings, pickets	2,102,912	2,231,466	21,918	2,198,116
Panks and boards	20,338,901	25,683,326	1,896,194	21,932,127
Shingles	3,208,142	3,824,554	.....	3,794,844
Timber, square	529,562	284,214	250,996	30,328
Wood blocks for pulp	6,450,962	6,562,928	.....	6,562,328
Wood-pulp	9,225,510	14,090,574	1,637,419	12,528,702
Wood and manufactures of—Total	$57,292,748	$69,965,576	$15,607,641	$49,919,799

Imports of wood and manufacturers of wood into Canada for the twelve months ending September were valued as follows: 1916, $10,254,139; 1915, $8,806,407. The 1916 total was made up as follows: From the United States, $9,863,982; from the United Kingdom, $173,836.

British Columbia Mills Want Harbor Facilities at Vancouver

A petition has been submitted to the Vancouver Harbor Commissioners by over 70 lumber manufacturing firms asking that facilities be furnished for assembling lumber and shingle shipments in Vancouver harbor at some point accessable to railways and also to ocean-going vessels. The firms petitioning represented plants in which over $15,000,000 are invested. The petition is representative of manufacturers in all parts of the province who would be benefited by proper facilities for making shipments which will enable mills that have in the past been barred from the export trade to obtain a share of it. Mr. Charles W. Tait, in a letter covering the petition, stated that the lack of economical facilities for assembling shipments increased the cost of handling lumber and shingles from the smaller mills, making it impossible in the past for any but the larger mills to participate in the export trade. Facilities which had been provided at Seattle enabled shippers to unload their cars and place their lumber in position for the ships' tackle at a very nominal cost, something less than 15c per thousand feet. The establishment of an assembling yard, with facilities for handling the products of the mills, would be the greatest boon that could be offered to the lumber industry.

B.C. Keen for Eastern Canada Trade

Manufacturers Expecting to Double Volume of Shipments—Conditions Much Improved on the Coast

Mr. L. B. Beale, British Columbia Lumber Commissioner at Toronto, who returned recently from a trip to British Columbia, during which he visited many of the mills, reports that trade conditions in the West are greatly improved as compared with a year, or even a few months, ago. In conversation with the Canada Lumberman, Mr. Beale said:

"Extreme optimism prevails everywhere on the Coast. The reason is that business to-day in British Columbia is real. It is being done for real money. Paper profits and paper figures have been dismissed entirely from the business man's mind and trade is being built up on an absolutely solid basis to-day. This is the case especially as regards the lumber trade between British Columbia and Eastern Canada. British Columbia manufacturers are convinced that Eastern Canada offers them a market quite different from the market of the Prairie Provinces, in that it is steady and absorbs that part of the log which is above the average in price.

"One thing that struck me particularly when on the Coast was the determination of the British Columbia mill to meet the requirements of the Eastern market, which are, to a large extent, peculiar when compared with the requirements of the prairie trade. Not only does the Eastern trade call for a different grade, but it requires a different method of manufacturing, as compared with the prairie trade. On the prairies the trade takes enormous quantities of common dimension, shiplap, etc., in addition to reasonable quantities of upper grades and finish. In the East the trade takes large quantities of heavy construction timbers and larger quantities of the highest grades of finish. Of course, this all may be altered under a normal shipping rate.

"The past year has seen a steady advance in confidence among the mill men of British Columbia, which is coupled largely with the bigger demand and better prices, and to-day the lumbermen view their operations, so far as the demand and the return upon labor are concerned, with satisfaction. In other words, we are not now obliged to sell stocks at a low price which does not return the cost of production. Of course, we have a long way to go to make up for the bad times, but I believe we shall sell every foot that we produce this season and next at a fairly satisfactory price.

"The two things necessary to stabilize our trade in British Columbia are an overseas business and a market that will eliminate the gambling chances of business. Eastern Canada offers one of these, and probably Australia and Europe offer the other. Of course, overseas trade depends upon the availability of tonnage at fair rates and facilities at tide water for assembling and loading. Some of our mills are splendidly equipped for the latter. I am convinced that whatever trade offers, the British Columbia mills will take care of it by expanding their facilities as may be necessary.

"British Columbia manufacturers are giving more attention than ever before to the problem of furnishing their customers with the precise class of stock they require, and in this respect they intend to stand second to no other lumber-producing country. Instead of following the old-time principle of trying to induce customers to take what they have to offer, the manufacturers of British Columbia are now doing all they can to show their customers, both domestic and foreign, that they are ready and anxious to furnish them with exactly such specifications as their trade requires. This does not mean any radical departure. The material is the same as it has always been, the best all-around utility woods produced anywhere, but the manufacturers now have a closer understanding of the needs of the user, and this is bringing a larger market, at better prices.

"In the short time since my return from the Pacific Coast I have been struck by the greatly increased enquiry and demand for our products. Manufacturers of articles using large quantities of wood are not only thinking of British Columbia as a possible source of supply, but are now using our forest products in their every-day manufacturing. This shows especially in farm implements, agricultural equipment, and so on. I was at a large plant a few days ago where they showed me farm equipment made from British Columbia Douglas fir that was superior to what they had previously made from the imported woods.

"Judging from what I have already seen, I think that the manufacturing trade, the building trade, and constructional works in Eastern Canada should use double the amount of British Columbia woods in 1917 that they used in 1916."

Mr. J. A. Villeneuve, president of L. Villeneuve & Co., Ltd., lumber dealers and sash and door manufacturers, and of the Eagle Lumber Company, Ltd., Montreal, died on December 10th, at his residence, after a long illness. The companies own mills at Mont Laurier and St. Jerome, P.Q. The businesses will be continued, the Eagle Lumber Company being, as formerly, under the management of Mr. J. S. Bock.

Handling Lumber in the Dry-Kiln

By John Warren

There is so much lumber and labor wasted in putting stock through the dry-kilns that it would seem millmen might profitably pay more attention to this important end of the business. In many places there is room for improvement in piling the stock on the kiln cars. Naturally it is very important to pile it straight, space it, use cross-sticks of uniform thickness, use enough of them and keep them exactly in line. A number of concerns employ help which is careless about this detail, with the result that an abnormal amount of crooked stock enters the machine room. The unsupported projecting ends of boards in a car of mixed lengths nearly always warp out of straight, so it is better, if possible, to load each car with uniform lengths, especially if piled flatwise.

Edge-piling is gaining favor because it reduces warping and cupping. The warm air passing upward between the vertical layers acts equally and at the same time on each side of the boards, therefore it dries them more thoroughly and in less time than the old way. There are cases, however, where edge-piling has been tried and later abandoned.

It was not given a fair test. When lumber is edge-piled for drying, a considerable amount of pressure should be applied to hold the layers together, else when they dry and shrink they will tend to collapse and defeat the purpose of edge-piling, by warping. For this reason special automatic stackers are recommended. These stackers are in extensive use in the big mills because cars can be loaded quickly and cheaply with them.

The kiln cars, the tracks, and the track foundation deserve attention, because it is on account of their condition that a lot of labor is wasted in getting lumber in and out of the kiln. If one cannot afford the most up-to-date equipment, that is no excuse for tolerating the worst and most time-killing methods. A little oil on the plain-bearing cars will help a whole lot in making them roll easier. As to the track, a man with an ounce of judgment could readily reason that a track on which loaded cars always move in the same direction, as is the case with kiln cars, should be nicely lined up, firmly supported, and, above all, on a slight down-grade. It is then an easy matter for two men to roll in or bring out a heavy car of lumber.

Yes, indeed, anyone knows that, but it is surprising how many kiln tracks are full of sags, which cause the car of lumber to run hard and stand in a twist as it dries; tracks spread or buckled, which causes wheel flanges to bind and stick and sometimes run off the track, and, worst of all, tracks which instead of being on the down-grade, or even level, are actually on the up-grade leading to the kiln.

I once worked in a small place where it was often necessary to round up from five to seven men to move a car of lumber in or out of the kiln. We often got a car started good, when—plunk!—off the track she'd go. Or if it wasn't off the track it would be: "Hey, Charlie, she's rubbing against the other car; get a plank and pry her over." We fooled away enough time on those kiln cars every year to pay for installing proper foundations, tracks, and roller-bearing cars.

A whole lot could be said about the internal workings of the kiln itself—the maintenance of a uniform temperature twenty-four hours per day, the proper circulation of the air, and the proper amount of moisture in the warm air to prevent checking and case-hardening. The details of these conditions depend upon the style and peculiarities of each individual kiln and the kind, size, and condition of lumber being dried. Many mill men regard kiln-dying as a more or less mysterious and uncontrollable process in which a certain amount of lumber must be ruined in order to dry it. Such losses can be greatly reduced, if not eliminated, by using the right kind of kiln, with proper care and regulation.

A thing of importance that is often overlooked or not considered in the layout of a wood-working factory is a dry storage room between the dry-kiln and the cutting room. It is never a good plan to do any machine work on warm lumber, although not a few places are reluctantly doing it because the layout of the establishment makes it necessary. It is now generally agreed that a car of lumber fresh from the kiln should be allowed to "temper" for at least a day in a storage room or inclosed shed of some kind. Then, without the storage room, it often happens that certain cars are pulled out too soon and others are left in too long. In both cases this is detrimental to the finished product as well as being a cause for an unreasonable percentage of waste.

A great deal of extra handling is saved by having things arranged so that a kiln car can be pushed right into the factory, where it is handy for the stock-planer or the stock-cutter. In some of the big mills transfer chains carry the lumber directly from the automatic unloaders to the planer table.

There are many ways in which lumber and labor can be saved at the dry-kilns. Each plant has its own individual problems, which must be worked out with care and judgment before satisfactory results can be expected.—The Woodworker, Indianapolis.

Mr. Carl Riordon, of the Riordon Pulp and Paper Company, Montreal, has been elected vice-president for Quebec of the newly-formed Aero Club of Canada.

Why the Retailer Ought to Advertise

And How He Can Get Large Returns Out of Strong Copy Well Placed—Examples of a Progressive Dealer's Advertisements

Advertising is one of the features of a retail lumber business to which much study may be given profitably, and from which results will depend almost entirely upon the manner in which it is handled by the advertiser. If one spends money on advertising chiefly so as to be relieved of the attentions of an advertising solicitor, that is about all he will get out of it. The retailer ought to consider advertising as something valuable to be bought by him as required, just like so much stock; not as something sold him by a clever solicitor. The retail lumberman can get a greater proportionate profit out of advertising than anyone else in the lumber business.

For the retailer in a country town there is no advertising medium equal to the local newspaper. It has a personal and local appeal that gives it a unique position, and if it tells the people of the town and surrounding district, in advertisements and reading notices well placed and arranged, about the fine stocks and good values in the local retail yard, the people will come to look upon that yard as an institution to which they owe personal loyalty.

It is all-important, therefore, that a retailer should design his advertisements well, and have them so placed as to attract all the attention possible. We reproduce four advertisements taken from a series used by J. F. Stiles, of Leduc, Alta., which appeal to us as being just about as good as they could be. They arrest the reader's eye unfailingly, and induce him to read through to the end. They are not long or badly crowded with type. As examples of good retail advertising copy, they would be hard to beat. The originals are about four times as large as our reproductions. Similar copy is used from time to time on postcards that are mailed to consumers.

Mr. Stiles has been using these cuts, or others equally striking, for the last ten years, with splendid results. His local paper appears once a week, and the advertising copy is changed about every two or three issues.

Location of his advertising is something to which Mr. Stiles attaches great importance. For the past thirteen years his advertisement has been found regularly on the front page of the local newspaper in a space reserved for him. It is easy, under such conditions, to understand why Mr. Stiles gets results. Fifty-two times a year for thirteen years the people of his community have seen his advertisement, always well arranged, occupying the same place in their local paper. If it should be missing some day the people would all be discussing it and wondering what had happened. The absence of the Stiles advertisement would seem more important almost than an announcement of a great allied victory.

The chief points we have alluded to above, and many more of importance, are well brought out in an article on "Retail Lumber Advertising," written by J. B. Webster, secretary of the Arkansas Association of Lumber Dealers, and published recently by the Southern Lumberman. Parts of this article we reproduce, as follows:

Until very recent years advertising, as we use and understand the word to-day, was practically unknown among retail lumbermen. It was not generally regarded as being essential to the success of the retail lumber business. In fact, it played but little part in the operation of the average retail lumber yard. Retail lumber dealers, like wholesale lumber dealers and manufacturers of lumber, proceeded as they had proceeded from the beginning, upon the theory, or with the idea and belief, that everybody knew all there was to know about lumber. They thought—if, indeed, they gave the matter any consideration at all—that the consumer would build or repair whenever he got ready to build or repair, and assumed as a matter of course that when he did he would have to buy his lumber from the local dealer. The idea that the consumer might be induced to build sooner than he would of his own volition determine to do so or to make repairs before he was forced through necessity to do so never seemed to occur to the retail lumber dealers, or at least to the average retail lumber dealer, any more than it occurred to them or to the wholesalers or manufacturers that the consumer might use some substitute for lumber in his building or repairing or that he might buy his lumber from a mail order house, catalogues for which were planted in nearly every home in the country before they were seen or taken notice of by the retail lumbermen.

Of course, we do not mean to say that there were no retail lumbermen who did advertising prior to two or three years ago. There are some, as we well know, who have engaged in extensive and profitable advertising for many years, and their records are most convincing as to the benefits to be derived from proper advertising. But these dealers are the exceptions which prove the rule. We are speaking here of the average retail lumber dealer of four or five years ago. Neither do we mean to state as a literal fact that this average retail lumberman did no advertising. The truth is, he did do some, but whether the results from it, if any, were beneficial or detrimental is a question not wholly free from doubt. This average retail lumber dealer probably had precariously suspended from the front of his dilapidated and unpainted office building a rough board on which had at one time been stenciled his name and the word "lumber." It would have furnished an interesting study for one versed in hieroglyphics or fond of deciphering faded epitaphs. This same average retail lumber dealer also probably donated a small sum annually to the local editor for running a two-inch, single-column stereotyped ad., from year to year unchanged, which likely the dealer had never taken the trouble to read. But the idea of giving some real time and energy to the writing of an attractive advertisement, to be published in a conspicuous place in the local weekly, at a fair cost, or the employing of an expert to do this for him, was as far from this average lumber dealer's notion of common sense and good judgment as were thoughts of painting and putting in order the places kept by him as his office and yard.

Things Have Changed.

But things have changed of late. The manufacturers have awakened to the fact that substitutes have made big inroads upon the consumption of lumber, and they have come to realize, too, that their duties have not been performed and that their interests in the community do not cease when the lumber is loaded on board the cars for shipment to the dealers. They now appreciate their interest in creating a demand for the outputs of their mills, and to this end are spending hundreds of thousands of dollars annually in an effort to educate the consumer with regard to the merits and uses of the different kinds of lumber.

Among the dealers, too, there has been an awakening, and many of them are now doing intelligent and profitable advertising, though the movement could hardly yet be said to be universal or even general. For there are still hundreds of retail lumber dealers, just as there are hundreds of small lumber manufacturers, who so far have not learned the importance of advertising. Possibly the best work that is being done to-day by the retail lumber dealers' associations is that of encouraging publicity and advertising among their members.

It is the idea of some—and perhaps they are in the main correct—that the advertising of lumber to the consumer is the business of the manufacturer; that it is the manufacturer's duty to provide a market or create a demand for his output. But in this, we think, the retail lumber dealer should help and co-operate. At least, he should use every means available to him to stimulate building and to increase the consumption of lumber in his own immediate vicinity. By doing this he will not only help the industry and add to his own personal wealth, but he will perform a service of real worth to the community in which he resides.

If we recognize the need of publicity and the value of advertising and admit our duties to the industry and to our individual businesses, we then logically and naturally turn to the questions of methods and means. Passing over the general subject of publicity, we will give our attention to a few ideas about advertising by retail lumber dealers.

Best Way to Sell Lumber.

Perhaps we will all agree that the best way to sell lumber, or any other commodity, is through personal contact with the consumer. If a retail lumber dealer can talk to a prospective customer in person, call

QUALITY
SATISFACTION
PRICE
Our Three Rules
First—the quality must always be there
Second—the price must always be right
Third—satisfaction must be a part of every sale
J. F. STILES - Main St. - Leduc

While lumber prices have advanced to some extent yet we are able to quote attractive prices, having purchased a large quantity before the raise
Portland Cement
Don't forget we are headquarters for the best Canada Portland Cement.
Wood Fibre Plaster—A fresh supply just received.
Shingles—Our No. 1 XXX Red Cedar Shingles will please you.
Screen Doors—Any size you want.
J. F. STILES - Main St. - Leduc

Good examples of strong advertisements for retailers.

his attention to the need of a new gate, show him a saving in feed by having a better barn for his stock, figure with him the investment returns of a silo, or convince him of the economy of repainting his house, and give him definite figures on the particular undertaking—in other words, make it possible for him to act with the fullest understanding and the least effort—the chances are good that the dealer will sell him. Time spent by a dealer in intelligently studying the needs of the individuals about him and in discussing these needs and conditions with those individuals should yield him good returns. But, of course, it is physically impossible for a dealer to see personally in this way all who should be his customers. It, therefore, becomes necessary for him to supplement with other means to employ some of the best plans of advertising.

One very successful method to reach a large number of customers in a more or less personal way is by using the mailing list system. The more personal the appeals of this kind can be made the better the results will be. This system, we know, has been used with good success by a number of retail lumbermen for several years. It serves to constantly remind the people in the dealer's community of his business and of their needs, and shows them that he is awake to such needs, and that he is prepared to supply them at reasonable cost.

Quote Definite Prices.

In this connection we should like to offer the opinion that considerable attention should be given to the question of prices. The price, in our opinion, is of much importance, not so much perhaps as to its being high or low, but as to its being definite and certain. We believe it a good plan to name prices that can be easily understood by a customer, so that he may be able to make up his mind as to whether or not he can afford to buy. We know that a great many, and perhaps a majority of lumbermen differ with us in these views, but we are convinced that a great many people fail to buy needed articles because they are not sure of the price and dislike to ask. Frequently a man has a hazy idea that the lumber needed to do a certain piece of work would cost him $25 or 30, when, in fact, the dealer would sell him the bill for $15. If he only knew this—that is, that it would only cost him $15—he would get the sum together and buy. But he is under the impression that it will probably cost him twice that amount, and thinks he can't afford to pay that. So, rather than make enquiry, and possibly be put in the attitude of wanting something he couldn't afford, he passes it up entirely. Many men would like to have information about the cost of a certain thing if they could get that information without asking for it. And often they would buy it if they knew exactly what it would cost beforehand. We believe this to be the great secret to the wonderful success of mail order houses. A farmer, for instance, can take a mail order catalogue and sit down at home at his leisure, when nobody else knows, and figure out to a cent what a certain article will cost him. He makes up his mind that he can afford it and buys. It probably would not cost him any more at the store of the local merchant. But the farmer does not know that. The merchant has never told him. The farmer can only find out by asking, and he declines to do that. He has a certain pride, and dislikes to appear ignorant about matters of this kind, or to show an interest in buying something which might cost him more than he feels that he can afford. Rather than be placed in a position of this kind he often does without something which he would have otherwise bought or perhaps he buys it from a mail order house.

We had an excellent illustration of the value of quoting definite prices reported to us recently by a dealer. The story, as it came to us, is:

"The other day a man came into our office and enquired about material for a wagon bed. He said he wanted something without knots in it. We told him we had some nice, wide boards, long enough to make a side and end each that we would sell him for $1 apiece, and that the side boards could be of a lower grade and would cost him 45 cents each. We showed him the lumber, and he said he would go get his team, which was over at the other yard, and that they had asked him $40 per thousand for the lumber he wanted."

This story was not told as a joke on this dealer's competitor; for, as he said, the joke would be on him if the customer ever figured up how much the lumber cost him per thousand. But it shows the value of quoting prices in terms that the average person can understand. He doesn't care anything about how much it cost him per thousand. That doesn't mean anything to the average man. He wants to know how much the completed job, or the lumber necessary to build a certain thing, will cost him.

Service to Customers.

We are not going into the whole subject of service to customers here, though that may be a strong factor in advertising, but we wish to digress long enough to relate a little incident that came to our notice a few days ago. A friend of the writer, a lawyer, wanted to construct a hotbed in his garden. He had some old window sash that would serve as a glass top for the bed, and wanted the lumber for the frame. He went to a certain retail yard, which also operates a small planing mill, and gave the dealer the exact measurements of the sash, and told him just how he wanted to build the bed, and asked the dealer to cut the lumber to fit. The lumber selected was two-inch stock. When this lawyer friend went to put his frame together he found it would fit one way, but was four inches too wide the other. Now, the purchaser could excuse himself for not thinking what difference the thickness of the lumber would make. He didn't claim to know anything about such matters, but went to a man who should know. But he's likely to be very slow to forgive the lumberman for overlooking such a simple little matter, that caused him to have to hunt out his old, rusty saw and cut off the ends of the two pieces of the lumber. It is entirely probable that this purchaser would not have given the dealer special credit had the pieces fitted exactly. That's what he expected. But when they didn't fit, the lumberman got for himself some adverse advertising. And we must realize that this advertising is a kind of a two-edged affair, working either way. A dealer must keep his service to customers up to a certain standard, otherwise it will work against him. If a dealer does keep his service up where it should be at all times it will soon be of great value to him.

Perhaps the medium through which the largest number of prospective customers can be reached is the home town paper. It is one of the first duties of a retail lumberman to his business to make friends with the editor of his home town paper. And the quickest and surest way, in our judgment, to get on good terms with him is to give him some advertising; spend some money with him. He sometimes needs the money, we understand, and, besides, he wants to make a success of his paper, and appreciates support. He will be found ready to cooperate with the dealer, and will give lots of free advertising through the columns of his paper if properly handled. The editor wants news—must have it—and often he can get a good story out of a new building for which the dealer is furnishing the material. The editor will gladly publish interviews by the dealer which will lead to a better understanding between the public and the retail lumber business. He can also be enlisted in a buy-at-home campaign and in proper season can be induced to urge the farmers to erect silos and build new barns and hog houses and to show the people of the whole community the importance of painting their houses and screening their homes. If a dealer boosts for the home town paper the local editor will go him one better in boosting the dealer's business, and, you know, the newspaper man occupies the logical seat at the table.

Referring again to the character of advertising, as we said, the old stereotyped form to the effect that Smith & Jones sell lumber, lath and shingles, stuck off in a corner of the paper where it is never read, doesn't go any more. We must have real, live stuff now. And it has to be more than mere "reading matter," unless it's mighty good and snappy. It must be attractive to the eye. And we may as well admit here that there is nothing attractive about a pile of lumber or a bundle of shingles, except, perhaps, to a lumberman, who sees it at an angle different from the average consumer. The consumer is not interested in lumber as such. He is interested in what can be made of lumber. We must, therefore, show him the finished product, that which has been made of lumber. If an advertisement contains the picture of a neat bungalow or a handsome residence, for instance, it will gain the attention of persons interested in bungalows or residences, as the case may be. They will then read what is said in the advertisement about the lumber, shingles, paint, etc., used in the construction.

Arrest the Reader's Attention.

One kind of lumber does not look a lot different from any other kind of lumber in a picture, but where a reader's attention has been caught by a picture he will read what is said touching the values of the particular kind of lumber advertised. It would be impossible, too, for the reader to distinguish one brand of paint from any other brand of paint by looking at a picture, but he will read a well-written description of the qualities of the particular brand that is being advertised. It is first necessary to arrest the reader's attention. When this

LUMBER
WE'VE STRUCK OUR GAIT
Yes, and jumping geewhillikens, how it does keep us humping. When we're not loading up wagons with Lumber and Building Material, we're busy getting in new stock.
Well, we're here for business—the more the merrier, so join the crowd when you want anything in the way of Native or Imported Lumber, Lath, Shingles, Windows and Doors, Lime, Plaster, Brick, Building Paper, etc., and come where satisfaction fills the very air. That's it
J. F. STILES
Lumber and Building Material
MAIN STREET
LEDUC, ALTA.
ARE YOU GUILTY?
This picture isn't overdrawn. You can see it on scores of farms when the temperature is down below zero.
This is not only cruelty to animals, but a heavy drain on future profits to compel your cattle to stay out in such weather. It will take two weeks feeding to recover the loss of one day under such conditions.
It is far more profitable to let your cattle eat their fill protected in barns or sheds than to keep them out this way. Then their food is used for production instead of keeping up body heat.
Think it over—then come in and let us show you how little it will cost to provide suitable shelter for the number of cattle you own. Its lowness will really surprise you.
J. F. STILES - Main St. - Leduc

Attractive borders and striking illustrations immediately catch the eye.

is done he will give careful consideration to the appeal. And in line with our idea that the consumer is interested only in quality and total cost of the complete job, we think the advertisement will be doubly valuable if it states the total cost of the building advertised.

Further emphasizing our idea of the value of cuts or pictures in advertisements, we think that the picture of a house, a barn, a silo, or, in fact, anything that is made of lumber, is a lot more attractive to the average consumer than the lumber from which it is made or cold black type telling of a yard where such lumber may be seen. Few people miss seeing the pictures in a newspaper, but many people read papers daily who never see the ordinary advertisements. Advertising is worthless unless it is seen and read; and if it is to be seen and read it must be different, original, and attractive. And we believe that nothing attracts as well as pictures or cuts.

There was a time when these pictures and illustrative cuts were obtained only at considerable cost, and the few dealers who did use them had them made from pictures of buildings for which they had furnished the material. We think that such cuts, even though they be a bit expensive, are well worth while, and we hope their use will become more general. For such cuts lend local color to advertisements and are, therefore, of greater value.

The article concludes with a reference to the cost of illustrations and designs for retail advertising, showing what the Arkansas Association has done for its members along this line, by preparing sets of good illustrations and copy, which are available to members at very little cost. This is one of the strong reasons why energetic retail lumber associations ought to be organized in Canada. In the Prairie Provinces this has been done, but in Ontario and Eastern Canada generally it has not. An Ontario association of retail lumbermen, for instance, could perform valuable service along these lines.

Higher Demurrage and Shorter Free Time

The Dominion Board of Railway Commissioners has issued an order regarding demurrage charges on Canadian railways as a result of the recent hearing in Toronto. The amended order goes into effect on January 1st to remain in force until April 30, 1917. The demurrage charges are as follows:—For the first day, after the free time, $1; for the second day, $1; for the third day, $3; for the fourth and each succeeding day, $5. Formerly, the charges were $1 a day. Forty-eight hours free time is allowed for loading or unloading cars, to be computed from 7 a.m. of the day following that on which the cars arrive. Previously, the shippers of lumber had 72 hours free time, so that according to the new order, which, of course, is only temporary, their free time is reduced by 24 hours and their demurrage charges are advanced as shown above.

C. L. A. Annual at Toronto

Arrangements are being made for holding the ninth annual meeting of the Canadian Lumbermen's Association at Toronto, some time early in February. It is probable that the date will be Tuesday, February 6th. Formerly, all annual meetings have been held at Ottawa. This year it is expected that the holding of the meeting at Toronto will result in the lumber trade at Toronto taking a greater interest in the work of the Association. A definite announcement of the date will be published in our next issue.

Directory of the British Columbia Lumber Trade

"A. B. C. Directory of the British Columbia Lumber Trade" is the title of an excellent book published by the Progress Publishing Company, Vancouver, B.C., at the price of $2. The book is full of valuable information to all who are interested in the British Columbia lumber industry, including an alphabetical list of lumber and shingle manufacturers, arranged in such a manner as to show the lines manufactured, capacity, etc., a classified list of manufacturers, lists of logging companies, wholesalers, log brokers, timber cruisers, towing companies, etc., extracts from foreign tariffs upon lumber, lists of lumber buyers in foreign markets, the timber laws of British Columbia, technical and statistical information regarding British Columbia woods, and a "Buyer's Guide" or directory of mill and camp supply firms. The information is arranged in very handy form, and the book is certain to find an extensive demand.

Pic River Limits Brought High Price

As reported in the Canada Lumberman of December 15th, the Pic River pulpwood limit recently put up for sale by the Ontario Government, containing 1,400 square miles, went to J. J. Carrick, M.P. We are now advised that Mr. Carrick represents a syndicate of Eastern capitalists who intend to develop the property immediately, and that their plant will be located at Port Arthur, Ont. The tender submitted by Mr. Carrick included a bonus of 50c a cord on spruce pulpwood, in addition to the 40c called for by the government; a bonus of 50c a cord on balsam and all other woods, in addition to the 20c called for by the government; a bonus of $12 per thousand feet of white pine, in addition to the $2 called for by the government, and a bonus of $6 per thousand feet for red pine, in addition to $2 called for by the government. The government conditions also involve the erection of a pulp mill which is to cost, with its equipment, not less than $1,000,000, and the daily output of which is to be not less than 150 tons of pulp. It is also required that the plant shall give employment to at least 300 hands for at least ten months in the year. It is further stipulated by the government that a paper mill with a capacity of at least 100 tons of paper per day shall be erected at such time and place as the Lieutenant-Governor-in-Council shall direct.

Can Build Any Number of Vessels

Mr. J. H. Price, president of the Cameron-Genoa Ship Builders, Ltd., Victoria, B.C., states that his company is prepared to accept any number of contracts for the construction of auxiliary wooden schooners. Speaking of the developments in shipbuilding at Victoria, Mr. Price stated that definite plans had already been decided upon, providing for the construction of 25 auxiliary schooners by the Cameron-Genoa Ship Builders, Ltd., and the Wallace Ship Yards of Vancouver. Mr. Price stated that after the first schooner has been launched by his company they will be in a position to put one vessel into the water every two months. These vessels are equipped with Diesel auxiliary engines, and have a length of 250 feet and beam of 44 feet, with 20 feet depth of hold. They will carry 1,500,000 feet of lumber.

Why Not Hold a Canadian Salesmanship Congress?

Scientific salesmanship as a theory has invaded the lumber industry of the United States, and the developing of scientific salesmen is becoming one of the functions of the revival of the lumber industry along modern lines. There was held in Chicago recently the first salesmanship conference ever held in the north applied to the lumber industry, when the Northern Hemlock and Hardwood Lumber Manufacturers' Association held a three-day session devoted to the problems of scientific merchandising from the standpoint of the salesman.

It has been charged that the lumber industry is the most highly specialized manufacturing industry in America, with the most elaborate and efficient methods in the world applied to its factories. It is also charged, however, that with the manufacturing, all efficiency in the industry ceases, and that the lumberman who is the best manufacturer in the world is at the same time the poorest merchandiser of his lumber.

If this is true, the salesmanship schools which are to be developed all over the United States will soon meet this charge. In St. Louis a few months ago the Southern Pine Association held a salesmanship congress, and the northern congress held at Chicago, and involving the states of Wisconsin, Minnesota and Upper Michigan was one of the most important meetings ever held in this territory. The conference had three objects:

The education of the salesman to modern methods in this work.

The discovery through the salesman, of the real needs of the consumer.

Informing the manufacturer as to the needs of his public, so that his product can be marketed in the form in which the salesman can sell it best, based on the wishes of the consumer.

It would be a fine thing for the Canadian industry and trade if its leading salesmen could get together in a similar manner and help the others to work out their big problems.

H. R. Isherwood will Help N.L.M.A. to Develop Retail Service

Readers of the Canada Lumberman will recall several exceptionally valuable articles that have appeared in our columns during the last few years, contributed by Mr. H. R. Isherwood, general manager of the Sawyer Lumber Company, Sawyer, Wis. They will not be surprised to hear that the National Lumber Manufacturers' Association, who have decided to open a new field of work in their trade extension department, by installing a retail sales development service, have engaged Mr. Isherwood as a special retail representative in this work. He takes up his new work on January 1, and his chief duty will be to give retail lumber dealers service helps in the increasing of their business, hints as to advertising, both in their local papers, and by specialty, and the service given will be of two types. The first is the service given to the dealer, to assist him in broadening his market, and the second the service to be given to the consumer, to aid the lumber industry in giving the customer the right wood for the special need, through the medium of the retail dealer. Mr. Isherwood will spend much of his time on the road, calling personally on the retailers, to give them suggestions, and to learn their problems and difficulties, in hope that the manufacturers can help them lift these burdens.

Mr. A. H. Grier, of G. A. Grier and Sons, Limited, wholesale lumbermen, Montreal, has been elected director of the Dominion Glass Company, in succession to his late father, Mr. G. A. Grier.

Outlook for the Lumber Trade After the War

By Dr. Edward Ewing Pratt*

The unsatisfactory situation of the lumber industry that has existed for the past few years, and still exists to a degree, especially as regards the softwood manufacturers, has been chiefly due to overconfidence in the future of their business on the part of the lumbermen. This overconfidence has arisen to a considerable extent because of their misconception of the actual facts, a misconception that was based upon the long-continued, steadily growing, and apparently everlasting demand for their product. Obsessed by the idea that timber values always went up and never came down, and that they must always continue to do so, the American lumbermen have built up a manufacturing plant capacity that can turn out annually some 170,000,000,000 feet for a market that calls for only 40,000,000,000 feet.

In making this great investment in some 40,000 sawmills, and in estimating the value of stumpage as a basis for loans and purchases at high prices, lumber manufacturers and timber speculators have acted blindly on the cheerful assumption that the demand for wood products would grow as rapidly in the future as it has grown in the past.

Now the lumber industry is confronted by a situation that explodes once and for all this unjustifiable theory.

The value of stumpage cannot stand apart from the value of the finished product. Once the price of lumber starts on the down grade or, what is the same thing, fails to advance in proportion to its cost of production, no power in the world will prevent the shrinkage of investments in standing timber and sawmills, based as they are on the optimistic assumption that the demand for lumber at the high prices in the future will be as great as it was in the past at the low prices prevailing then.

Increasing Cost of Lumber.

With the shifting of the centers of production from the more accessible eastern and lake states forests to the less accessible southern and far western regions, the retail price of lumber, as all of you will know, has increased enormously. The freight rate, which was once a small part of it, is now, in many cases, more than the mill price itself.

In the face of this increasing cost of lumber, and largely as a result of it, the consuming public has turned to the use of substitutes—iron and steel, concrete and brick, patent roofing, cement sidewalks, metal lath and shingles, and the host of others that now replace lumber to a considerable extent. It is estimated, although probably the estimate is far too low, that this substitution takes place to the extent of eight billion board feet per year.

As a matter of fact, the estimated actual lumber cut in this country has fallen from forty-five billion feet in 1907 to thirty-eight billion feet in 1915. Meanwhile, the per capita consumption has declined from 504 to 358 feet in the same period.

Domestic Market Shrinkage.

It is evident, therefore, that the domestic market for lumber is steadily shrinking. This is due in part to high prices, which are, in turn, due to increased cost of production and in part to the increasing use of substitutes for lumber. This latter element is the combined result of the high prices of lumber and the active merchandising campaigns carried on by the makers of substitutes. On the other hand, there has been a constantly growing investment in stumpage and plant, necessitating a continually increasing output. Is it any wonder, then, that lumbermen have seen prices jumping like a steam nigger in their mills, from one extreme to the other, and is it any wonder that lumbermen have seen their profits turn into losses?

European Demands Yet Unknown.

If the war should end now, and lumber imports into Europe should show no increase, there will be shown at the close of 1916 an estimated deficit in the normal European lumber supplies of some $400,000,000. This is entirely outside of the great additional needs for lumber due to the actual destruction of the war. No one knows at present the amount of lumber that will be needed by France, Belgium, Poland, and other countries that have suffered directly from the war, to replace devastated buildings, railroads, bridges, etc. There can be little doubt that this amount will run into large figures and that hundreds of millions worth of general-purpose lumber will be called for as soon as the great European struggle is ended. It has been estimated in Europe that at least $400,000,000 worth of lumber will be needed for this purpose. Add $400,000,000 as the deficit in the normal demand. This seems to indicate that a total of $800,000,000 worh of lumber over and above the usual demand of $580,000,000 will have to be supplied to Europe by the lumber-producing countries. Allowance must, of course, be made for buildings that will never be replaced. Allowance must also be made for curtailment of consumption due to enforced economy; $380,000,000 would seem ample for these purposes. Any of these figures, however, are at best mere estimates; but it seems likely that in the year following the close of the war the demand for lumber in the lumber-consuming countries of Europe will approximate a billion dollars.

It is easy to anticipate what countries will compete for the privilege of supplying this lumber. We cannot expect to do all of the business. We will be lucky if we are able to do even a major part of the business. In the year 1913 we shipped more wood products than any other country in the world, amounting to a total of $115,000,000 worth of lumber. In the same year Russia shipped $88,000,000; Sweden, $84,000,000; Austria-Hungary, $68,000,000; Canada, $50,000,000; Finland, $47,000,000; Germany, $26,000,000; Norway, $24,000,000; and Roumania, $5,000,000. The total European exportation amounted to $392,000,000, and the combined Canadian and American exportation amounted to $149,000,000, making a total from these, the chief lumber-exporting countries of the world, of approximately $550,000,000. Of course, all of this lumber did not go to Europe. Sweden, Norway, Germany, and Austria shipped lumber all over the world, but naturally the great bulk of their output went to Europe.

Not only have we not tried to market our lumber in foreign countries; we have not even filled satisfactorily the orders that have come to us. Our intermediaries have been financed by bankers and merchants of other countries. We have not even presented a united front to their agents, but have bid against one another. We have cut the prices in export trade even more readily than in the home market. It might be worth while to observe in passing that the tendency in practically every European country of the present moment is to concentrate purchases. In some countries this has even taken the form of the government's purchasing organizations, some of them co-operative, have come into existence, or have been expanded, since the beginning of the war. It is even more necessary than ever before for us to present a united front to those who wish to purchase our products.

I have noted with more than ordinary interest the formation of the Douglas Fir Exploitation and Export Company. I also understand that steps are being taken for the formation of a Southern pine export sales company. These developments are along the right lines. I am glad to learn that your organization and other organizations in the lumber industry are at work on the pressing question of standardization of export grades and the troublesome problem of the proper seasoning treatment for salt-water shipments.

The Question of Dimensions.

The question of dimensions is another one that has caused no end of difficulty. In Germany and in other European countries where certain building regulations specify room dimensions of four meters, or 13 feet, our inability to saw boards to metric measurements has been a perpetual obstacle to our entrance into that foreign market. Outside of Great Britain and ourselves, most of the world uses the metric system. The larger the business we do in international trade and the more we look forward to the development of that business the oftener we will be reminded of the advantages of being familiar with this system of measurements. Already it is being used in our laboratories and in our machine shops and in our steel plants, interchangeable with the old English measures of inches, feet, and yards, and I have no doubt that the day is coming when your sawyers will turn out a four-meter board as handily as they do a 12 or 16 feet length.

Douglas Fir Will Share Trade.

I understand that there is a feeling on the Pacific Coast that the lumber manufacturers there will not be especially benefited by the European demand for lumber. It is said that the Southern and Eastern manufacturers will reap the benefit.

Then there is another angle from which we can view this question. Should the end of the war come suddenly, the mills of both the pine and fir regions are likely, from all accounts, to be swamped with orders. If the yellow pine moves to Europe in large quantities, coast woods must fill the place left vacant in the Middle Western markets, where Nebraska, Iowa, and Missouri alone take some 600,000,000 board feet annually. The development of a European market will be of the utmost direct and indirect benefit to the lumbermen of the West Coast. It will be of benefit to the redwood and sugar-pine interests, as well as to the fir interests. You should study it just as carefully and should expect to get just as much of the business in proportion to your output as the manufacturers in other portions of the country.

*Chief of the Bureau of Foreign and Domestic U. S. Commerce Department of Commerce.

Information received from Fredericton, N.B., indicates that lumber operators have enjoyed an excellent autumn for their work; also that the scarcity of labor which was feared has not materialized. The cut of lumber in Central New Brunswick is therefore likely to be about normal.

H. M. Eichelberger, Los Angeles, Cal., visited Vancouver recently, in order to make arrangements for the pulp to supply a paper-making plant which he has opened at Los Angeles. Mr. Eichelberger states that, after testing various grades of pulp, he has decided that the British Columbia product suits his purpose best. He will manufacture various kinds of light weight paper.

Increased Efficiency in Felling and Bucking

By Paul E. Freydig, Cathlamet Timber Co., Cathlamet, Wash.*

The subject, "Increased Efficiency in Felling and Bucking," is one which needs no preliminary introduction, especially to the operator who has tried to reduce his felling and bucking costs—or, in other words, an increased output at a decreased cost. By this latter statement I do not mean a deliberate slashing down of the greatest amount of timber in the shortest time, or bucking trees in two at a break-neck pace, but instead, putting a tree down where it will save the most timber. Oftentimes a tree will save as well in one place as in another, in which case a little forethought on the part of the fellers may make the bucker some money, as well as help the rigging crew and the company.

In this discussion I will put aside theory, turn to the practical, and use Mr. Van Orsdel's merit system as an example. This system has been put to the test in at least half a dozen of the larger camps on the Columbia River, and in all cases has given entire satisfaction.

At the Grays River camp, where this merit system was first installed, the percentage of reduction in costs for the falling at the end of the first season was 20 per cent.; for the bucking the reduction was 43 per cent., as compared to previous years when no system was used. In other operations where conditions were much more favorable the costs for both falling and bucking have been reduced 50 per cent. The simplest way to make the system clear to you will be, first, to read to you the merit system rules as they are posted in the camps for the men's information:

Timber Fellers, Cathlamet Camp, 1916.

The fellers in this camp will be paid a premium of 11c (eleven cents) per thousand feet they fell above the standard, and divided as follows:

6c per M. to the head feller.

5c per M. to the second feller.

The above to be paid for all the timber that each set of fellers get in excess of 50,000 feet per day on the fir side, and 33,000 feet per day on the hemlock side; to be figured at the end of each week of six days for their usual pay, and for each thousand feet that each set of fellers get in excess of these standards they will be paid 11 cents per thousand feet, divided as set out above. A set of fellers will be required to fell on the fir side:

In a 6-day week.....300,000 feet
In a 7-day week.....350,000 feet

On the hemlock side:

In a 6-day week.....198,000 feet
In a 7-day week.....231,000 feet

Their premium for the week will be figured at the end of each, and they will be credited with the amount for the week, irrespective of what they have done during the prior week or what they may fell for the next week.

To illustrate the point: Suppose a set of fellers fell on the fir side in a 6-day week 360,000 feet, they would be paid a premium on 60,000 feet, or the head faller would have added to his pay for the week at 6 cents per M., $3.60; and the second faller would have added to his pay at 5 cents per M., $3; or the daily wage of the head faller for the six days would be $4.35, and for the second faller $3.90 per day.

On the hemlock side the same illustration would apply, providing a set of fellers felled 258,000 feet in a 6-day week. They would get a premium on 60,000 feet of timber, and the daily wage of the head faller for the six days $4.35, and for the second faller $3.90 per day.

Proper and equitable deduction will be made for defects in the way of defective timber, feller's breaks, etc.

The logs will be scaled in the same way as they are at the rollways—that is, by the Spaulding Log Scale.

No credit at all will be given for the trees that are broken through careless felling.

At the end of each week the names of the sets and the amount each set has felled during the week, and the amount of timber they are being credited with, and the cost per thousand, will be posted in a prominent place in the office, in order that each set of fellers will be advised as to how they stand.

A new set of fellers will not be put on the premium list until the next Monday after they arrive and begin work in the camp.

Buckers, Cathlamet Camp, 1916.

The buckers in this camp will be paid a premium of 12 cents per thousand feet for all the timber they buck in excess of 22,500 feet per day on the fir side, and 17,500 feet per day on the hemlock side, figured at the end of the week—or a bucker will be required to buck 135,000 feet each week of 6 days on the fir side, and 105,000 feet on the hemlock side, for his usual daily pay, and for each thousand feet that he bucks in excess of these standard he will be paid 12 cents per thousand feet.

When buckers are required to work Sundays, then their output will be for a 7-day week instead of a 6-day week, and the standard for 7 days will be 157,500 feet on the fir side and 122,500 feet on the hemlock side, and the premium will be computed from this.

To illustrate: Suppose a bucker cuts during a 6-day week 167,300 feet of logs, then he would receive premium on 32,500 feet, or $3.90 per week on the fir side, or his total pay for the week would be $23.40, or $3.90 per day. O the hemlock side the same illustration would apply, providing a bucker cuts 137,500 feet of logs per week; he also would receive premium on 32,500 feet, or $3.90 per day.

Only buckers who are following the fallers will be paid premium.

It would be impossible for us to pay the windfall bucker a premium on account of their having to buck so much defective timber. However, it will be our policy to put all new buckers on as windfall buckers and move the old windfall buckers out into the fallen timber, so they will be advised how he stands.

The logs will be scaled in the same way as they are at the rollways.

A bucker will be allowed no credit for a log that is poorly bucked, and if a bucker leaves a tree or a windfall unbucked on his strip behind him, he will be compelled to go back and buck it.

A bucker must begin work on Monday morning in order that he may be included in the premium list for the week, except in the case of a windfall bucker who has worked in the camp a week prior to the time that he is put on to buck after the fellers. In that case his premium will be based on his production for the logs he has bucked in productive timber.

There will be no changes in these rules or the standards if the standards adopted by us prove to be satisfactory to both you and to us.

Though the standards were somewhat different, the above rules were first tried out and put into effect at the Grays River camp several years ago. From preceding years' records for similar ground conditions the standards were definitely decided upon at the very first, and remained unchanged, and proved to be satisfactory all that year.

Marking and Scaling Trees.

The method of marking and scaling the trees will be taken up in brief: The head bucker, assisted by a competent scaler, determines the log lengths, drags the head end of the steel tape, and notches the tree where it is to be bucked, calling the log lengths out to the scaler; the scaler holds the rear end of the tape and scales the logs where they have been marked. In order that the work may be posted by Sunday, the falling and bucking week ends Friday night. Beginning Saturday morning each set of fellers starts with No. 1, 2, etc., as each tree is felled, marks the number on the butt of the tree, and to keep his tree apart from the other fellers, marks his initial on the butt as well. The scaler takes down on his pad the feller's number on the tree, but in order to get the tree again for the bucker, and to distinguish one week's work from those of previous weeks, he, too, places his special mark for that week on the butt of the tree; the bucker places his number on each cut and also on a slip of paper; keeps a record of the trees he bucks, to be delivered to the scaler on Wednesday and Friday nights; the record of each tree, by whom felled, bucked, and amount of scale therein is now complete and always at hand for future reference. It is the head bucker's duty, of course, to see that all cuts are properly made.

Logs Accurately Scaled.

The statement that the logs cannot be scaled with sufficient accuracy in the woods to warrant a system is erroneous and misleading. It can be done, and to a greater degree of accuracy than is generally supposed, providing, of course, that the proper care and attention are given. The logs are scaled but once. It is essential that the notches are cut through the bark to the sap, thus giving the scaler a correct idea of the thickness of the bark. Especially is this necessary in big fir timber; also if the timber is large and the ground steep, making unfavorable conditions for holding the scale-stick properly, a plumb bob should be used for getting the proper distance out on the sides of the log.

Increased Output With Decreased Breakage.

Misleading statements have been made, stating that any system that will offer remunerative incentive for faster work and bigger output will tend to cause less care on the part of the fellers in their natural rush and endeavor to secure additional bonus money. With this system, from the beginning the aim has always been to first get increased output by decreased breakage. By scaling a few bad breaks for the fellers you can soon convince them that care on their part will net them and the buckers both more money as well as to increase the output for the yarders.

Standards of Comparison.

In determining the standards to be used past records and data will serve best for a working basis.

In Plate I. the ground conditions were extremely rough and unfavorable; the stand per acre 65,208 feet, as follows:

* Address delivered before the Pacific Coast Logging Congress.

51 per cent. yellow fir, average log..... 2,911 ft. B.M.
23 per cent. cedar, average log ..... 1,083 ft. B.M.
16 per cent. hemlock, average log ..... 977 ft. B.M.
10 per cent. spruce, average log ..... 1,941 ft. B.M.
Fellers' standard .....40,000 ft. per day
Buckers' standard .....16,500 ft. per day

In Plate II. the ground conditions were much more favorable, and the stand per acre 115,000 feet, as follows:

90 per cent. red fir, average log ..... 1,202 ft. B.M.
7 per cent. hemlock, average log ..... 858 ft. B.M.
3 per cent. cedar, average log ..... 700 ft. B.M.
Fellers' standard .....50,000 ft per day
Buckers' standard .....20,000 ft. per day

In an almost pure type of hemlock timber, conditions otherwise about the same as Plate II., with a stand of 40,000 feet per acre:

97 per cent. hemlock, average log ..... 950 ft. B.M.
3 per cent. cedar, average log ..... 1,200 ft. B.M.
Fellers' standard was .....30,000 ft. per day
Buckers' standard was .....13,000 ft. per day

The Results Obtained.

The results obtained for the above red fir and hemlock conditions were as follows:

	No. of days.	Scale bucked.	Bucking standard.	No. of logs.	Per man day of 10 hrs.	Bonus paid.
Red fir ..	570	15,217,788	11,400,000	14,104	26,697	$ 496.34
Hemlock.	558	12,261,304	7,254,000	11,711	21,973	650.91
Total	1,128	27,479,092	18,654,000	26,815	24,360	$1,147.25

Wages paid, $3 per day. Premium, 13 cents per M. feet board measure.

Falling.

The above timber was felled at the following total averages: Red fir, 63,658 feet per day (10 hours); hemlock, 40,705 feet per day (10 hours). Wages paid: Head faller, $3.60 per day; 6 cents per M. feet premium; second faller, $3.25 per day; 5 cents per M. feet premium.

Unavoidable Breakage.

Breakage, too, can be scaled accurately if the proper amounts of care and attention are given.

In Plate I. type of country and topographic conditions the per cent. breakage was 4½ for merchantable yellow fir. The breakage for cedar was much more, it being almost impossible to save more than 80 per cent. of the total tree in the steep canyons, as under no conditions can a hollow butted cedar be controlled against its lead.

In red fir the breakage at no time has exceeded 5 per cent. Of this breakage 8 per cent. of the timber being No. 3 logs, under the Columbia River Grading Rules, and occurring in the tops of the trees as unavoidable breakage. The breakage factor for the first timber felled is somewhat less than for the second falling; however, the figures given are an average for both. Using these figures with a standard of 50,000 feet per set day (breakage 5 per cent.) the total scale felled would be 52,631 feet; 5 per cent. of this, or 2,631 feet, at $3 per M. stumpage, would have a value of $7.89, the amount broken by each set of fallers each day that they make the above standard. As stated before, 87 per cent. of the amount, or $6.86 worth in this case, would be top-breakage, and mostly unavoidable, leaving $1.03 worth of timber out of every $157.89 worth that might have been saved, or the ratio would be one dollars worth of timber lost for every $153.29 worth felled, or in this case less than seven-tenths of one per cent.

In the hemlock timber, especially where the wood is used for pulp, the breakage factor is practically negligible.

A very convenient and practical method for keeping a record of the work is by plotting the total average daily scale for each bucking or falling week; or a record for the daily average for each week for each bucker or a set of fallers can be kept; this can be carried on in a progressive form.

Perfects Process to Utilize Mill Waste

Dr. J. G. Davidson, of the University of British Columbia, in co-operation with Lloyd L. Davis, of the department of industrial chemistry of the University of Washington, has discovered a process of distilling sawmill waste whereby it is believed that thousands of dollars now lost will be saved.

By means of this process tar, a light oil, acetate of lime, and charcoal are formed. The gas produced by distillation is carried through a pipe nine inches in diameter and twenty feet long. In this pipe is an electrically charged wire, which causes precipitation of the heavy particles of tar. The tar, forty gallons for each cord of wood distilled, is of medium consistency, and immediately marketable. The light oil, obtained in a water condenser, is immediately marketable for use in ore refining, and the yield is twelve gallons to the cord of wood. Eighty pounds of acetate of lime are obtained from the pyroligneous acid of each cord of wood. Nine hundred pounds of charcoal are the final yield.

Dr. Davidson has been working on the problem of simplifying the distilling of wood and coal by the process indicated above for over two years. The greater part of the work has been done in the Vancouver gas plant and the Tacoma gas works, and the facts discovered in these two plants were utilized last summer in a series of experimental runs lasting for about a month in the wood distillation plant belonging to the United States Forest Service and the University of Washington at Seattle. Mr. Davis, a senior student of that university, made the analysis of the products. Arrangements are now being made to test out the process in connection with the carbonizing of coal under conditions which give the volatile products as tar and light oils with a minimum of coal gas. It is expected that this will complete the experimental and demonstration work which is considered desirable.

The Psychology of Competition

Proper Cost Accounting Will Tend to Eliminate Ruinous Competitive Practices

A feature which has contributed so largely to unsettled conditions in the lumber industry has been the lack of a standardized system of cost accounting and all that it implies in the way of co-operation. Attempts made in the past to determine the relative costs of manufacturing and distributing lumber in a given section or sections of the country among a considerable number of manufacturers and distributors have shown a variation of over 200 per cent. upon the manufacturing end and 100 per cent. upon the distribution end. And each one of these manufacturers and distributors stated emphatically that his was the correct method of figuring cost, and what was more, each appeared convinced in his own mind that he was doing business as cheaply as the others. Think of it! And this is an industry where the margin of gross profit was in many instances very little more than the variation in the costs of doing business as figured by the several competitors concerned.

And these same lumbermen are attempting so to handle their business that it may show a profit at the end of the fiscal year. These are the figures upon which they are basing the prices they are making to prospective customers. And still they profess to wonder that their quotations and those of their competitors are so widely at variance with each other and why, each time a piece of particularly desirable business is up, some one among them appears to have in his possession lumber which he seems very anxious and, in fact, determined to give away.

Instead of devoting a little time to finding out why such is the case they spend it in calling each other crooks.

In no other industry of any importance does there exist to-day so little co-operation among those engaged. While in other lines organizations formed for the purpose of comparing the costs of manufacture and of distribution exist upon every hand, some purely local but others of a national scope, nothing of the sort so far exists in the lumber business. Heretofore each individual engaged in it has considered that he was sufficient unto himself, while at the same time he and his competitors have for years been known as participants in an industry the members of which have held the reputation of being far and away the poorest merchants in the business world. No doubt exists in the minds of those who have made a thorough study of the demoralized conditions obtaining in every branch of the industry for years past, that lack of co-operation and failure to standardize cost systems can largely be held responsible.

Overhead Expense Items.

There are certain items of overhead expense that are properly and directly chargeable to the cost of manufacturing lumber; certain others that should be charged to the merchandising of the same product. The lines of demarcation between what should be charged and what should not be charged are in each case clearly drawn. No excuse exists for the failure upon the part of any man engaged in any branch of the industry to know what these items are. So long as he does not know, he fails to justify his existence as a lumberman. In fact, he has no place as the directing head of a concern in any line of business. He deserves to play, and should be playing, the role of a subordinate until such time as he may have acquired this knowledge.

If he possesses this knowledge and does not make use of it to the extent of having an accurate record of his costs kept from year to year —yes, even from month to month—and carefully studying them and then making comparisons for different periods in his own business, he does not yet deserve the title of lumberman.

No lumberman would make an attempt to carry on his business without knowing what his raw product cost him (in the case of the manufacturer, the log; and in the case of the retailer, the delivered

cost per thousand), yet many who are to-day posing as such frankly admit that they do not know what it is costing them to manufacture and merchandise lumber. And why should not the cost of manufacture and the cost of merchandising be considered as much a part of the cost of lumber to their respective customers as is the cost of the product when it enters their hands?

It is astonishing to find how few retail lumbermen can to-day state the cost to themselves of handling a thousand feet of lumber through their yard, and yet they keep an accurate record of their cost of doing business, down to the smallest detail. They can tell you quite readily the percentage of expense based upon their selling prices, but if asked to state what it is costing them to merchandise a thousand feet of lumber their guesses range anywhere from two dollars to five dollars. They are buying their lumber by the thousand feet, they are in many instances having it unloaded and piled by the thousand, they are selling it by the thousand feet, and still they are figuring their cost of doing business in percentages.

Will Not Influence His Competitors.

Even when a stray retailer is found who keeps an accurate record of what it is costing him per thousand to merchandise, it is apparent that he is making very little effort to induce his competitors to keep a similar record so that comparisons may be made. If it is mentioned to him that nine-tenths of the very low prices being quoted by his competitors—prices that result in the business being taken by someone at a figure that shows no profit, or even a loss, are the result, directly or indirectly, of failure upon the part of some one competitor to know what it is costing him to do business, he is apt to express doubt, until it is called to his attention that one dealer of this kind in any community is sufficient to spoil the greater part of the desirable business.

Underestimate Their Costs.

It is a well-established fact that among the dealers who do not know what it is costing them per thousand none can be found who, when asked to estimate it, will name a figure which proves afterward to be in excess of what it is actually costing him, but all, without exception, name a figure which is far lower, even to the extent of 50 per cent. As a consequence the legitimate profit of every dealer doing business in the community is endangered by the existence of one such.

The dealer or dealers who constitute such a menace to the welfare of others should be educated in the cost of doing business. It is distinctly up to their competitors to see to it that they are so educated. If no outsider can be found who makes a specialty of performing such a service, then the other lumber dealers should take it upon themselves individually and collectively to do it. This may sound like rank heresy, this educating one's competitor to the cost of doing business, this helping him to become efficient. It is not so, however. It is plain, everyday horse sense. A competitor who knows to the cent what it is costing him to do business is in a position to figure the exact cost to himself of the lumber laid down on the job, and, having done this, it is rare indeed that he will deliberately quote a price that stands to lose him money. On the other hand, the man who does not possess this knowledge is at any moment liable to do so. Consequently his competitors would be money in pocket by educating him.

Again, the only competitor who is desirable is a satisfied competitor. So long as a man makes a legitimate profit in the conduct of his business he stands to be fairly rational and reasonable. As such he is, as a rule, content to let his competitor make money. But let him find out that he is not making money and his disposition undergoes a radical change. He becomes irrational and unreasonable. And no wonder. His creditors are crowding him. He sees his bank balance dwindling, and immediately sets about to find a remedy. The first, and oftentimes the only, tangible one appears to lie in securing a greater volume. And when he starts out to do this he injures his competitors.

Afraid of the Statutes.

Unfortunately, because of misinterpretation of the law by the general public, many lumbermen feel that in getting together with their competitors and comparing notes as to costs of operating and other features of their business they would be guilty of an illegal act. Not so, however. They are as free to do this as they are to breathe, so far as their legal status is concerned. Those engaged in other indusries awoke to this fact some time since, and in some cases have for years maintained organizations which serve as clearing houses for such information. Others acting together have jointly employed men of more than ordinary ability and practical business experience in their line—men who have made a careful study of the problems incident to their particular calling, and paid them heavy fees to come into their community and maintain such a clearing house. These men have not alone educated any delinquents they may have had in their midst, but have, through their broad knowledge of that particular line of business, made it possible for all the dealers to reduce their operating costs. These dealers have besides, through these experts, had access to comparative cost tables made up from the operations of others engaged in the same lines in sections of the country both far and near, and as a consequence have had their field of knowledge considerably broadened.

The service rendered by the experts in question has by no means been confined to operating costs. It has embraced every department of the business, credit conditions, stock investments, stock turn-over and profits, both gross and net. These business men have been surprised to find that they could be saved money in every department of their business. They have found, however, that a large part of the benefit derived from such service lies in the better feeling engendered between themselves and their competitors and the realization of the mutual benefits to be derived from co-operation.

What has been accomplished by those engaged in other lines of business can be accomplished by the lumbermen. It is perfectly legal for them to co-operate within certain limits. No law exists to prevent them from organizing locally for the purpose mentioned above. The services of men who are recognized as progressive, practical lumbermen, and who have made a study of country-wide conditions in the lumber industry, may be had for the work of organizing such bodies, and even for the task of seeing that they are operated efficiently after they have been organized. These men are in a position to bring to any body of local lumbermen certain data and statistics which would prove of real value to every one of them.

The solution of most of the problems confronting the lumbermen of to-day lies in closer co-operation among themselves, particularly as regards their comparative operating costs. It is decidedly up to them to avail themselves of the opportunities presented, and that as quickly as possible. Restricted and regulated competition of the sort that contains much of co-operation and not the old, blind, cut-throat kind, is the order of the day. And those lumbermen who would not be behind those of other communities must act, and act promptly.—Mississippi Valley Lumberman.

The High Lead Logging System

By S. A. Stamm, Hamilton Logging Co., Hamilton, Wash.

I. Evolution.

Before going into detail of the particular problem which the speaker is to discuss, let us recall the evolution of logging systems:

In the beginning there was hand logging, usually at the edge of drivable water courses. This method was closely followed and more often combined with animal logging. Oxen, horses, and mules bearing the brunt of the task of getting the logs to the transportation points. The heavy stands of timber available and accessible for marketing; the high rate of interest and taxes and the inevitable march of progress along these lines, due to more difficult logging chances, inaugurated power logging methods which have become quite diversified and complex of recent years, due to the initiative and inventive genius of the logger.

Power Logging

Ground logging: (a) Tight rope method; (b) slack rope method.

Overhead or aerial logging: (a) Tight rope systems; (b) semi-tight rope.

Modifications of ground and overhead system: (a) "High leads."

Ground logging with the tight rope and slack rope systems was the initial development following the animal logging. The slack rope system, with the main line and haulback, is almost universally used on the Pacific Coast.

To expedite and facilitate the output on rough ground, also to lengthen the life of the equipment and rigging, overhead or aerial logging methods were developed. Tight rope overhead systems are developed to a very high degree, and for many years superceded the ground logging method in the "poor logging chances." You can readily bring to mind many of these systems, with their advantages and disadvantages, when we mention the Tramway, Lidgerwood, North Bend, Balderee, Masten, Nestos, and Hawthorne methods. Each of these emplovs a sky line, suspended between two spar trees, the ends anchored. The McFarlane system may be classed as a semi-tight line system, since its sky line is lowered to the ground to lock on to the locks, then tightened up, and the log is hauled in to the landing over it. No doubt many modifications of the overhead system will continue to appear from time to time, because it still remains a fertile field for the versatile logger and inventive genius. In quite recent times the talent for progress has burst forth in the shape of a combination of the overhead and ground logging systems, in which the bull block is elevated 75 to 200 feet above ground on a spar tree, hence the name "high leads."

II. Results obtained from high leads.

It has not been our lot to have this system in operation long enough to get good, average data. However, you may be interested to know what we have accomplished to date.

(a) The timber was first killed four years ago; loss due to break-

age is heavy; the hemlock is gone on account of rot; stand is dense, but the individual trees are small; ground is regular and level.

1. Camp scale average stand per acre is 52,500 board feet.
2. Output per donkey day, 25,000 board feet.
3. Average hauling distance, 1,000 feet.
4. Labor cost of hauling to landing, $1.04 per M.

Camp in Company Timber.

(b) Good medium sized timber; very poor logging chance account very steep, rocky, rough, broken ground, consisted of one-quarter section area; railroad entered on south line in northwesterly direction, ended 900 feet north of the south line on the 1/16 S. line; this necessitated a swing donkey proposition; the yarders used high leads and the roaders ground logging. The ground rises 800 feet in the half-mile.

1. Camp scale average stand per acre, 50,600 board feet.
2. Output per donkey day, 41,000 board feet.
3. Average hauling distance, 1,000 feet; maximum, 1,300 feet.
4. Labor cost of hauling to landing, $1.30 per M.

Remarks: Bad roads, labor trouble, unhandy with new crews, knocked bent out from under one of the railroad bridges, etc.

Rigging in General.

(c) It requires five men two days to move the donkeys, cut off the top of the spar tree, and set the guy lines. Five chockers seem to be most efficient. We are using Waterhouse patent hooks; also the doughnut hook.

Loading Equipment and Arrangement of Rigging.

Where the high leads yarder and the loading donkey are at the landing together, the loading rigging is suspended from the guy wires. Usually use two pair of tongs. There are two Washington duplex loaders on the job.

(e) Advantages of the high lead are:

1. Saves equipment expense, in that we can use the ground yarding equipment, with the exception of the purchase of a 36 in. bull block.
2. Decrease wire rope expense 100 per cent.; longer life of line, account of reduction of amount of the line subject to ground friction.
3. Reduces the cost of felling and bucking, because the timber does not have to be laid in any particular direction because of the vertical purchase of the spar tree.
4. Keeps logs from gouging into the ground and from hanging up on stumps when working within the limits of the spar tree height.
5. Saves 60 per cent. of the landings expense due to yarding both sides of the track from the same spar tree; also on account of longer yarding distance.

(f) Disadvantages of high lead:

1. Requires one more loader per side, other things being equal.
2. Yarding donkey must be set about 100 feet from the base of the spar tree to relieve the purchase on the top of the pole.
3. Yarder must be set so that the lines will come on to the drum squarely; otherwise the line will cut itself winding on the drum while hauling.
4. Guy wire must be so placed that two of them will carry the strain due to hauling. If not, the spar tree is in danger of snapping off.

Systematic Salesmanship

By H. H. Butts*

In salesmanship in any line you should outline some definite plan of action; work along those lines always trying to improve, and making changes as conditions may warrant, never forgetting the fact, however, that the object of your systematizing is to sell more and to better advantage, otherwise you will soon have possibly only an elaborate system and a large surplus of unsold stocks.

Salesmanship, the brand that is worthy the name of true salesmanship, has come, not as a result of sporadic effort, but by propagation and a gradual diffusion of ideas. Its growth and its development have been due largely to an inner consciousness of the growing need for the training of the facilities, with a view to making it a practical department of business rather than a pastime, and to effectually combine knowledge with industry, inculcating the finer traits of loyalty, courtesy, integrity, patience, and perseverence.

To my mind there is no pursuit in life that offers greater opportunities for intelligent and scientific management. Knowledge of the products we are selling is a primary requisite, and it must be a sound and practical knowledge of every phase of the undertaking. The time has passed when a glib tongue and a doubtful personality can secure the confidence of the buyer. The older methods that were once deemed to be successful have given way to a newer and better system of merchandising, and the old regime has passed.

A great deal of thought and discussion has been given lately to the matter of branding lumber for the purpose of combating dishonest practices in the way of mixing grades, giving short measure, and misrepresenting the quality. I have often wondered if we might not go a little farther with this thought and apply it to the individual marketing of it.

The foundation of all sustained action is largely dependent upon knowledge. The one who succeeds in the sales management of the lumber business must, first of all, know his products, how they are made, what are the costs of production, not only as to operation, etc., but to know what is involved in getting each item of manufactured lumber from a saw log, and how best to produce it. Needless to say, he must possess himself of every morsel of information pertaining to the kinds of lumber he is endeavoring to sell, and he must be able to impart that information to the taveling salesman in such a manner as to carry conviction and establish within reason the validity of every contention he makes.

The sales manaer of to-day must be one who regards every situation fairly and without prejudice. His duties are, indeed, manifold and varied. Selfishness must give way to a broader and more liberal view of things, and the stimulating influences of personality, the dynamic forces of real character, and the powerful example of industry were never so much needed as now.

In the management of correspondence the art of selling manifests itself in a degree not surpassed in any other branch of this most useful department of business. It is in this branch of the department, I fear, that most of us are deficient. Every enquiry leads to possibilities of some kind or other, the extent of which depends largely upon our own initiative and industry. If a buyer has enquiries, for instance, for 4/4 No. 1 common birch and you do not have the stock to offer, do you simply state "unable to quote" and open a possibility for some foreign substitute, or do you offer a substitute yourself? After covering the enquiry in your reply and expressing the usual regret that you have been unable to submit prices on his requirements, select a few items of stock you do have and in a clear and lucid enunciation of the excellent qualities of the stock for certain purposes, with which you have already familiarized yourself, drive home the argument that for these particular purposes no other wood possesses so many uniformly good qualifications, always giving a reason why.

The reason why should never be omitted from a letter offering your products. The pulling powers of the written plea for orders loses its sting when the logic of reason is colorless and indefinite. You cannot hope to bring a response with a purring request; your slothful appeal seldom gets a hearing, and more often is consigned to the waste basket.

A scarcely less forceful argument for the consideration of your products is in the carefully written follow-up letter. Every answer to an enquiry should be followed with a second letter, giving added reasons why the paticular stock you have offered should receive careful consideration. In this follow-up letter extreme caution should be observed that there is no repetition of previous arguments, except that some one or two very important features may be emphasized and additional educational matter submitted. In every instance the traveling salesman should receive copies of all letters written to prospects or customers in his territory, and the personal call should be timed to meet the exigencies of each situation.

As a concrete example of how this combination works out, I recall a contract just taken recently for a large amount of crating material in hemlock and tamarack that the consumer for years had insisted could not be supplied in anything but yellow pine. It was not a case of protecting deliveries necessarily, but the result of continuous and scientific team work between the sales manager and representative in that territory. A sample car preceded the closing of the contract, and the consumer was more than pleased with the results obtained in trying the material out, and his future requirements are not only unquestionably and permanently secured, but an additional outlet for Northern stocks as well.

Salesmanship knows no hours of limitation, except that they be for needed rest and relaxation and such diversion as is required to keep the individual from growing stale. There are times when a wholesome indulgence in play acts as a tonic, and a good mental bath occasionally in an atmosphere of cheerful amusement stimulates and strengthens the mind that is keyed up to twelve cylinder, one hundred horse power activity. An ebbing vitality is not destined to meet the rigorous demands of present-day selling needs. Needed rest and enjoyment contribute in no small degree to keeping the fires of interest and enthusiasm at white heat and the mind well poised to meet the demands of every situation.

The sales manager should have suitable card indexes, easily accessible, and so compiled and arranged that every user of lumber in the territory you are endeavoring to cover will be definitely known, for the kinds of lumber he consumes, and when he will be in the market for his requirements.

What has been said of the pre-eminent need of knowledge for the sales manager is equally true of the traveling salesman. Not only must he know how lumber is manufactured and handled, but he must also know how to impart information to the customers in a convincing manner, and carry conviction to the point that destroys doubt.

*Address delivered at Northern Lumber Salesmanship Conference.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Hardwood Logs Wanted

Beech, birch, hard and soft maple, basswood, elm, etc. Fifteen inches and upwards, random lengths. Gardner Basket Co., Ltd., St. Catharines, Ont. 1-1

SPRUCE MILLS

Inquiries for next season are coming in. I have market for your sawing of 1917. All or any part. If interested write me fully.

EDWIN D. HOWE,
P.O. Box 384 Valatie, N. Y.
23-2

WANTED

Large quantity of maple, black birch or hickory plank cuttings, 6 in. x 6 in., also 7 in. x 7 in., all 1¾ in. thick, must be dry and sound.

Also several carloads maple, beech or birch squares, 1 in. to 1¼ in. x 3½ ft. to 4½ ft. in length.

J. FINLAY & SONS CO.,
23-4 Norwood, Ont.

For Sale–Lumber

Spruce For Sale

150,000 ft. Merchantable Spruce, 5th quality and better, 3 in. x 4 in. and up x 12 ft. long, dry, 1915-16 sawing, for immediate shipment.

J. GEO. CHALIFOUR,
1-2 Quebec, Que.

Dry Birch For Sale

We have for prompt shipment 500,000 feet dry Canadian Birch in all thicknesses from 6 to 16/4.

Plunkett-Webster Lumber Co., Inc.,
1-1 New York, N.Y.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal

GEO. C. GOODFELLOW,
Montreal, Que.

For Sale–Machinery

Lumber and Machinery

50 H. P. Steam Saw Mill for sale very reasonable. One care of No. 1 Red Birch. A full set of cooperage machinery. Box 69, Colborne, Ont. 24-1

For Sale

Goldie & McCulloch Corliss Engine, 16 x 38, 150 horse power; Berlin Matcher, No. 90, good as new; Grand Rapids Engine and Generator for 150 lights.

R. LAIDLAW & CO.,
22-2 Toronto, Ont.

MACHINERY FOR SALE—One pair carriage sett works, with shafts and spring, Wm. Hamilton make. One Lath Mill. One Bolter. All in good condition and cheap.

Papineauville Lumber Co., Ltd.,
22--1 Papineauville, P.Q.

FOR SALE

1—Wicks Gang.
1—Ideal Engine, 13 in. x 12 in.
1—Plain Engine, 16 in. x 24 in.
1—Plain Engine, 5 in. x 7 in.
1—Boiler, 72 in. x 16 in.
1—Boiler, 54 in. x 12 in.
2—Upright boilers.
1—Cookston water heater.
Several steam pumps.

CHAS. PEDWELL,
16-t.f. McVicar, Ont.

Wanted–Machinery

Lumber Trucks

Wanted twenty-five, more or less. Must be in good condition. Iron wheels, 40 inches in diameter; 5-inch tires preferred.

Apply, E. D. McCallum, Drummondville, Que.
23-2

Machinery Wanted

1 Tongue and Grooving Machine.
1 Butting Swing Saw Machine.
1 Swing Shingle Machine.

All for heading mill.

C. B. Janes & Company, Limited,
23-t.f. Orillia, Ont.

Dutch Ovens Wanted

Wanted two Dutch Ovens, suitable for boilers 60 in. x 16 ft., or two boilers of about 75 to 100 H.P., equipped with Dutch Ovens. State price f.o.b. cars.

Trenton Cooperage Mills, Limited,
23-2 Trenton, Ontario.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

SUPERINTENDENT operating the largest mills in Minnesota with exceptional success for 20 years, wishes to change. Box 488, Canada Lumberman, Toronto, Ont. 24-1

ACCOUNTANT—Thirty years old, with twelve years' experience in office; married, and speaking both languages, is prepared to take an engagement with Wholesale Lumber or Pulp and Paper Companies, either in Quebec or New Brunswick. Best of references. For particulars write to P. O. Box No. 69, Three Rivers, Que. 24-1

BAND SAWYER wants position; thorough experience and fast man. References from big firms. Single or double cut. Box 492, Canada Lumberman, Toronto, Ont. 1-3

Business Chances

For Sale—Controlling interest in a Saw and Planing Mill, capacity 25,000 feet. Could be increased considerably. Mill on rail and tide water. Unlimited timber supply. For particulars apply to R. H. Young, Squamish, B.C. 21-1

For Sale

Planing, saw and chop mill, and auto truck. 1¼ ton capacity, jacks, pipe dies, vise and anvil. Everything as it is half price. Want to go West. Apply to John McCormick, Lawrence, Ont. 1-6

FOR SALE—Factory and property at Mount Albert, Ont., 4 acres land, 7 acres water and water power, complete, 3 storey building, 40 ft. x 80 ft., stone foundation, 3 floors, approximately 9,600 feet, also lean-to, one storey, 20 ft. x 40 ft., and separate office on ground near street, 23 ft. x 25 ft. Boiler and engine auxiliary power equipment. Mill pond valuable for fishing and power. Splendid shipping facilities, C. N. R. and G. T. R. Electric light available. Ten years' exemption from taxes can be arranged. Cheap labor and comfortable homes in village. Apply Wrights Limited, 22 College Street, Toronto.
23-24-25-26

Valuable Box Factory For Sale

The undersigned will receive offers for the purchase of that valuable property known as the

Czerwinski Box Factory

situated on Logan Ave. and Tecumseh Street, Winnipeg, Canada. This property comprises what is believed to be the finest box factory in Western Canada, fully equipped with the latest and best machinery for box manufacturing and ready for immediate operation. It also includes the factory site, consisting of about 2½ acres of land close in to the business centre of the city, and possesses unexcelled trackage facilities. Street cars pass the factory door. This is a magnificent opportunity for any person wishing to engage in box manufacturing. The whole may be purchased at a very great bargain.

Further information may be obtained upon application to

H. E. DENEEN,
Assignee of the Czerwinski Box Co., Ltd.,
300 Electric Railway Chambers,
22-t.f. Winnipeg, Man.

FOR SALE TIMBER AND MILLS

The undersigned offer for sale in one or separate blocks their timber and mills situated on the Crow's Nest Pass Railway, B. C., viz:—

About 12 square miles near Cranbrook, B. C., well wooded with larch, fir, etc., and a mill in good working order, capacity forty thousand feet.

On Lamb Creek, near Moyie, B. C., 12 square miles, heavily wooded with white pine and large spruce.

At Yahk Station, 4,551 acres Crown granted timber land, also about 7 miles white pine, larch and spruce, and a mill with a capacity of sixty thousand feet.

At Cranbrook the company own an up-to-date plant equipped with good machinery, where, under a favorable arrangement with the C. P. R., the output from different points named can be assembled and dressed ready for shipment.

The above timber all being in close proximity to the C. P. R. and the distance to the Alberta boundary being about 100 miles, gives the producer an advantage over the Coast mills, saving from $2.00 to $5.00 per thousand feet in freight alone.

The King Lumber Mills, Limited,
23-2 Cranbrook, B.C.

PULPWOOD FOR SALE

10,000 acres of choice pulpwood in Nova Scotia. Excellent shipping facilities. Will sell en bloc or would consider taking contract of ten or fifteen thousand cords of rossed wood for shipment next year. This is a big opportunity for someone. The paper industry offers a great field, and it will be more important from now on. There is no finer tract than the one offered here, with transportation right at hand. Write for detailed information.

Box 730, New Glasgow, N.S.

Miscellaneous

Sleighs For Sale

Twenty-five sets logging sleighs, in good condition. The Peterborough Lumber Company, Limited, Peterborough, Ont. 20-1

Tenders for Pulpwood and Pine Limit

Tenders will be received by the undersigned up to and including the 1st day of February, 1917, for the right to cut pulpwood and pine timber on a certain area situated on the Black Sturgeon River and other territory adjacent thereto, in the District of Thunder Bay.

Tenderers shall state the amount per cord on pulpwood, and per thousand feet board measure, on pine, that they are prepared to pay as a bonus in addition to dues of 40 cents per cord for spruce, and 20 cents per cord for other pulpwoods, and $2.00 per thousand feet, board measure, for pine, or such other rates as may from time to time be fixed by the Lieutenant Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario.

Parties making tender will be required to deposit with their tender a marked cheque, payable to the Honourable the Treasurer of the Province of Ontario, for ten thousand dollars ($10,000), which amount will be forfeited in the event of their not entering into agreement to carry out conditions, etc. The said $10,000 will be applied on account of bonus dues as they accrue, but the regulation dues, as mentioned above, will require to be paid in the usual manner as returns of cutting of wood and timber are received.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

G. H. FERGUSON,
Minister of Lands, Forests and Mines.
Toronto, 1916.

N.B.—No unauthorized publication of this notice will be paid for. 21-2

Why Western Lumber is Firm

At a meeting of 75 mill operators in Seattle, Wash., on December 20th, the following report

upon trade conditions was made public:

That it is costing on an average of $2 a thousand feet more to produce lumber than at this time last year.

That car shortage is just in the preliminary stages of traffic paralysis, and that the real crisis will not come for several months.

That mills are becoming hard pressed for suitable storage space owing to the continued excess of orders and production over shipments.

That many mills are operating on reduced schedules, and that some have discontinued operations entirely except as to the conditioning stock intended for "early" delivery.

That the railroads, returning to wood construction after alleged unsatisfactory experiments with steel and steel prices, will be in the market for 40,000,000 feet of "car material" in the course of the next few months.

That shipbuilding, a decadent Pacific Coast industry suddenly rejuvenated by unprecedented ocean freight rates, will absorb not less than 100,000,000 feet of lumber in 1917.

Stocks of lumber for transcontinental shipment went up one dollar a thousand feet about the same date.

Canada's Growing Newsprint Production

The "Bulletin" of the American Newspaper Publishers' Association, in a recent number referred to an interview with Mr. I. H. Weldon, president of the Provincial Paper Mills Company, Toronto, in which Mr. Weldon said, "in ten years all the newsprint in America will be manufactured on the Canadian side of the line." In regard to this the "Bulletin" says:—

"There is no doubt Mr. Weldon's conclusions are correct and it will be noted they have been very much resented by the American paper industry.

"The location of the biggest developments will doubtless be British Columbia, Lake Winnipeg and the territory south and east of Hudsons Bay; also the territory eastward from Temiskaming country to Labrador is a logical field for pulpwood development in the next twenty years.

"With Canada jumping to the position of supplying us with one-third of our entire paper supply, publishers must carefully give thought to what bearing this will have on the paper situation of the United States, and see that the policy of ourselves and our government is so shaped as to adequately protect our supply of paper, as well as to stimulate new tonnage to come into our market. In addition to this, tariffs, embargoes and regulations of all kinds must be so handled as not to antagonize the interests supplying this paper to us.

"It is only a question of time till Canada will prohibit the export of wood entirely when the industry will rapidly move north. Many old, narrow and slow machines in the United States are now going on other grades never to return to print. These must all be replaced by new, wide and fast machines in Canada."

J. E. A. Dubuc, president of the North American Paper Company, controlling 1,360,000 acres of pulpwood lands, predicts that Canada will eventually produce enough wood pulp to supply the needs of the entire world. He does not look for any decrease in paper prices because of the many uses to which paper is being put and the increased general demand. Plans have been perfected for a greatly enlarged output of North American paper. The concern has big mills at Chicoutimi, in Quebec Province.

Mr. E. C. Knight, managing director of the Vancouver Lumber Company, announces that an amalgamation has been arranged of the Vancouver Lumber Company and the Mainland Cedar Company. While the transaction is tantamount to absorption of the smaller firm, it will still be known under its own designation. It is proposed to double the output,

FRASER LIMITED'S

LIST OF

Second-hand Lumbering Machinery

1 Auto Shingle Saw Sharpener, Hanchett Swage Works, Cat. No. 748.

1 Circular Clapboard Resaw. Dunbar,

1 Circular Saw Grinder, Covel, Cat. No. 35

1 Dougle Clapboard Planer, Woods, Cat. No. 46.

1 Double Clapboard Planer, Dunbar.

1 Dynamo, direct current, Akron Manufacturing Company, Cat. No. 1396.

1 Edger, iron frame, St. John Iron Works, 6 ft. 4 in. x 2¾ in. arbor.

1 Engine, centre crank, 16 in. x 16 in.

1 Engine, side crank, 14 in. x 16 in.

1 Engine Flywheel, 25½ in. face, 14 ft. diameter, 7½ in. shaft.

1 Fan, 16 in. suction, 16 in. discharge, Sturtevant, Cat. No. R.H. 3669.

1 Friction Clutch Pulley, 28 in. diameter. 11½ in. face.

1 Gang and 2 sets of saws, Wicks, 54 in. gate. Cat. No. 1.

1 Gunshot Feed, 8 in. diameter, 37 ft. long.

1 Knife Grinder S. A. Wood,

1 Planer and Matcher, S. A. Wood, Type No. 27.

1 Pump, 6 in. x 3½ in. x 9 in.

1 Pump, Snow Steam Pump Works, 3 x 2 x 3, No. 55985.

1 Rotary Carriage, wood, right hand arbor, 5 ft. 9 in. x 3⅛ in.

5 Saws, inserted tooth, edger, 18 in. diameter, 11 gauge, 3 in. pitch, 4½ in. bore.

1 Saw, inserted tooth, rotary, 46 in. diameter, 9 gauge, 3½ in. pitch, 2 in. bore.

1 Saw, inserted tooth, rotary, 48 in. diameter, 9 gauge, 3½ in. pitch, 2 in. bore.

3 Saws, inserted tooth, rotary, Simonds, 52 in. diameter, 8 gauge, 4 in. pitch, 2¼ in. bore

2 Saw Gummers, wooden frame.

1 Set Works, hand, Waterous Engine Works, No. 4 double acting.

14 Shingle Machines, McF. T. & A., Dunbar Type.

1 Small Band Saw Grinder, Baldwin, Tuthill & Bolton, Cat. No. 2.

1 Steam Boiler, 16 ft. long, 6 ft. in diameter, 140 3 in. tubes.

1 Steam Cylinder, Waterous Engine Works, 7 in. diameter, 30 in. stroke.

1 Steam Cylinder, Waterous Engine Works, 10 in. diameter, 30 in. stroke.

1 Steam Nigger, Oscillating, Waterous Engine Works, Size 3-0, No. 109.

1 Twin Engine, Whitter Machine Co., Boston, Mass., 12 in. stroke, 7 in. diameter.

1 Upright Engine (Mark F15), W. E. Hill Company, 4½ in. diameter, 6 in. stroke.

Also a large assortment of Belts, Pulleys and Shafting.

Prices, Descriptions and Complete List, with all particulars, sent on application to—

FRASER LIMITED

FREDERICTON, N. B.

Union Lumber Co.

Limited

Complete Stock

White Pine

Red Pine

Spruce

5 Cars Dry 32 in. Mill Run White Pine Lath

Union Lumber Co., Limited

701 Dominion Bank Building

TORONTO, CANADA

PRESSES

Hydraulic and Screw for VENEER VENEER DRYERS PULP

Special machinery made to order

WILLIAM R. PERRIN

TORONTO, CANADA Limited

HARDINGE

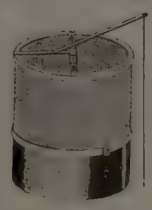
Watchman's Clocks

Write for details

SIGNAL SYSTEMS CO.

205 Stevenson Bldg., TORONTO

Spark Arresters



Wire Cloth for Refuse Burners

Our spark arrester is substantially built and will last for years. Don't wait until a fire has visited your property, equip your mill at once.

Prices on application

Canada Wire & Iron Goods Co. Limited

HAMILTON, ONT.

Review of Current Trade Conditions

Ontario.

The Ontario lumber trade has slackened off to some extent, as is usual at this time of year, on account of the holiday season, and on account of the fact that it is also the season for retailers to draw up inventories of stock on hand and to find out how they have got along during the past year. From what we are able to learn in advance, most of the retailers will find that they have made up during the last half of the year for the small volume of trade they enjoyed during the early part of the year. The actual volume of trade in the last six months has not been exceptionally large, but it has been growing steadily, and has been at good prices, so that the year has been a fairly satisfactory one taking it all in all. During the fall prices have advanced for all lines, and available stocks have been reduced to such an extent that further advances are undoubtedly due.

The general situation is more interesting than it has been at this time of year for many years past. It is expected that soon after the holiday season the volume of trade will return to its average of the past few months, and will then gradually increase until it reaches a regular spring level. All the indications point to this development, and in view of the small quantity of stock that is being taken out of the woods this winter and the bare nature of most of the mill yards, it is hard to see where the requirements of next season will come from.

Further information that we have received from manufacturing points bear out the previous reports regarding curtailment of operations in the woods. The labor situation has become more critical with the advance of the season, and the outlook is for a still less satisfactory state of affairs on account of the extensive recruiting that is going on for forestry battalions. Reports we have regarding weather conditions in the North are that they have been moderately favorable for woods operations so far, and that those who are in the bush have been able to conduct their felling operations without serious interference on account of the weather. An unusual amount of rain is reported in the North, so that the rivers and streams are much swollen, but if frost comes before heavy snow, the logging conditions will be good.

In the large cities improvement is reported in the building outlook. It is not usual at this time of year that this should be the case, but the actual volume of building operations has been so curtailed during the past few years that the improvement in general trade conditions is now having the effect of bringing out some projects which have been hanging fire for many months. Manufacturing activities are also considerable, and are, if anything, gradually increasing, especially those which have to do with the production of war material, so that the consumption of wood for industrial purposes is keeping its pace well. The advanced prices which were reported in our previous issue are well maintained.

In the hardwoods there is nothing exceptional to report. Strong prices continue in all lines, and the demand is good, although showing a slight falling off on account of the season. Some dealers report advances of $1 and $2 on maple and birch.

Eastern Canada

The arrival of the New Year finds the trade at Montreal in a fairly promising condition, but handicapped considerably by the uncertainty as to the quantity of stock that will be available when the demand increases. Everyone agrees that a shortage of stock must be expected, as the cut in the woods is being curtailed. Moreover, some manufacturers are stopping their lumber operations and are going into the pulpwood business in preference, as the demand for pulpwood is very strong and looks as though it would increase. Stocks of spruce at mill points and elsewhere are now lower than they have been for a great many years. Those who have a fair amount on hand are holding firmly for higher prices. Some enquiries from Ontario have been declined. Local yards at Montreal are practically bare of stock. The shell box business has decreased in volume as the Imperial Munitions Board have temporarily stopped accepting deliveries, except in the case of Bethlehem boxes. The building outlook for 1917 is fairly promising.

The Boston market for eastern spruce is very firm at the new high price of $32. Quotations at present are: 8 in., $42; 9 in., $33; 10 in., $34; 11 and 12 in., $35. Shipments of stock from the mills are slow. The market for random is very firm. Sales of 2 x 4 in. are reported at $27, while some wholesalers are asking more. Other sizes are selling as follows:—2 x 3, 2 x 6, 2 x 8, $31; 2 x 10, $33; 2 x 12, $34. A better demand is reported for spruce boards, covering boards selling at $22 to $23 and matched stock lengths at $25 to $27. All hardwoods are strong at Boston and sellers are flatly refusing to make any concessions. A general advance of prices is expected shortly. Maple is scarce and high, some mills quoting more than $47 for the best grades in inch stock. Actual sales of firsts and seconds 1 in., are reported at the following range:—basswood, $44 to $46, maple $45 to $47, plain oak $63 to $65, quartered oak $89 to $91, red birch $60 to $62, sap birch $50 to $51. The shingle market at Boston has been rather uncertain, chiefly on account of poor transportation facilities. White cedar extras are bringing $4 and clears $3.60. Advances are expected early in the New Year. Lath are very firm, with light offerings. For 1⅝ in. sales are reported at $4.90 and for 1½ in. the lowest price is $3.90.

Great Britain

The spot market at London continues active. A large percentage of the shipments recently arriving have been taken overside to avoid delay. Fairly extensive arrivals are reported, but they show no tendency to catch up with the demand. Prices for all classes of goods continue to advance. Stocks at the docks show a very light surplus in "yellow" goods, spruce deals and battens. Deliveries at London docks during the week ending December 2nd amounted to 14,621 standards, as compared with 5,148 standards during the corresponding week of the previous year. At Foy, Morgan and Company's latest auction sale a lot of 1 x 4/6 yellow pine, second and better, from Quebec, brought £28 15s per standard. Unsorted spruce from Halifax sold at £28 5s for 3 x 9 and £24 for 3 x 3. Unsorted spruce, 2 x 6, from Halifax, sold at £26 5s. Unsorted spruce from St. John, 1st, 2nd and 3rd, 3 x 8 brought £28 10s. Unsorted 3 x 9 spruce from St. John brought £29 10s.

The c.i.f. spruce deal market at Liverpool has practically disappeared with the end of the cargo season. A few small liner parcels arrive occasionally and are quickly sold, each new parcel registering an increased price. There is no contracting ahead for these parcels on account of the ship owners having no space to offer. The parcels arriving are mostly stocks taken on at the last minute by vessels which have managed to save a little room in stowing their other goods. The market is quiet and shippers are holding their goods in pile, rather than dispose of them at the good prices now offering. Spot values are very firm and further increases are expected. Stocks of spruce in importers' hands are very small. Birch, like all other goods, shows advancing values all round, both for c.i.f. and spot transactions. Very little c.i.f. business is reported.

At Glasgow, a fair amount of business is reported, buyers showing a tendency to replenish their stocks. A number of transactions are reported in spruce at very firm prices, particularly for 9 in. and wider. Stocks of narrower sizes are fairly ample and prices for these have not advanced to the same extent.

United States

Increased orders are still reported by all the important lumber producing sections of the United States, together with decreased output and a moderate improvement in the transportation situation. During the Christmas holiday week and also during the first week in January, a considerable reduction of output is always expected. This year it will probably be a greater reduction than usual. Prices for southern pine are advancing on practically all items and manufacturers now report that their lists are stronger than they have been at any time during the past two years. The improvement in the transportation situation in the south is due to the release of many cars that have been used for shipment of cane, cotton and rice crops. In the southeastern States the trade situation continues to improve under the influence of an exceptionally heavy demand and better shipping facilities. A large quantity of export business is in sight.

The railroad companies are also heavy purchasers, especially of ties, while sills and other material are in better demand at firm prices. There is also an upward tendency in the prices of heavy construction timbers. Many retail yards are now placing their orders for spring requirements and the general outlook for the mills is excellent.

Some increase in stocks is reported from west coast mills during the past fortnight, on account of car shortage, but production is still lower than the volume of new business secured. Conditions in general are favorable and manufacturers are inclined to advance prices. Extensive sales of railroad material are reported in the Pacific Northwest, to the Union Pacific and the Great Northern. New orders for shipment to the United Kingdom have also been received in considerable volume, for which shipping facilities will be furnished by the British Government. Extensive contracts are also reported for delivery in the Panama Canal zone, and there is an encouraging vol-

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ume of enquiry from the east. The west coast situation, therefore, is more favorable than it has been at any time during the past year. Inland Empire mills are also doing better. Western pine manufacturers' shipments, according to their latest weekly report, have been in excess of production and almost equal to the orders received. Favorable reports are also received in connection with the market for California white and sugar pine. The redwood market is stiffening considerably and recent average advances of $1 on all grades have not had any effect upon the demand.

November sales of hardwoods by members of the Hardwood Manufacturers' Association exceeded October sales by a little more than 15 per cent. The monthly inspection report of the National Hardwood Lumber Association for November shows similar results, the shipments of hardwoods by members of this Association being heavier than during any month in the previous four years. The hardwood trade is holding up strongly in spite of the holiday season, the best report being in regard to oak, which is maintaining its advances firmly. There is a good demand for quartered oak. The demand for ash is improving and there is a good movement of basswood. The demand for northern hardwoods is increasing and considerable price advances are reported. Prices of all northern hardwoods are expected to advance with the New Year.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Montreal Markets—Higher Prices Expected

Montreal, December 27; (Special to the Canada Lumberman):—Now that the year is practically over, lumbermen are discussing the prospects for 1917. So far as prices are concerned, the outlook is promising, but when the question of stock likely to be available is considered, another story has to be told. There is a unanimous opinion that we must expect a shortage, on account of the restricted cut, and also on account of some manufacturers going into the pulpwood branch in preference to sawing logs. The demand for pulpwood is strong, and with the pulp and paper mills working at capacity, this demand is likely to increase, with a consequent stiffening of values.

Trade is keeping up very well, the chief drawbacks being the scarcity of lumber. Mr. Arthur Campbell, of the Campbell-MacLaurin Lumber Company, Limited, states that in the course of his twenty years' experience he never knew spruce to be in such short supply at this time of year as it is at present. Certain lumber firms which have a fair amount of stock are holding for higher prices, believing that these will be obtained at the turn of the year. Many inquiries from Ontario points are being received, and some of them have been declined. Local yards are comparatively bare of stock.

There is a slackening of activity in shell box making, owing to the Imperial Munitions Board's orders that no deliveries will be taken for some time, except in the case of Bethlehem boxes, and these have been curtailed. In consequence, factories have closed down. Firms making for the general trade, report that business is good.

The building outlook for 1917 is fairly satisfactory. Further contracts have been let within the last fortnight, others are pending, and plans are in progress for several new structures in the city and in the province. At Quebec, the construction trade promises to be very active, as the contracts in hand and to be let are numerous and important.

The past export season was one of difficulty, and indications are that 1917 will be no better. The nationalization of British shipping, as outlined by the Premier, is certain to have an effect on the export of lumber. It is possible that the plan of licensing exports may be adopted. This is in operation for hardwoods, and although there was much confusion at first the plan seems to have worked out fairly well. Manufacturers of lumber for the United Kingdom have advanced their prices, it being claimed that their production can be disposed of in the home market at enhanced prices.

Pulp and paper markets are again very firm. The stock of sulphite at the mills is low, and the imports from Europe into the United States are not up to requirements. This month 14,000 tons will be exported to Great Britain. Prospects are that the high level of values now being obtained will continue for several months. Ground wood is in excellent demand, with high prices. Extensions are being made to Wayagamack and Chicoutimi plants.

Parrsboro Shipments During 1916

Parrsboro, N.S., December 19th.—The shipments of deals and scantling from this port to the United Kingdom this season totalled thirty million superficial feet. This is upward of two and a half millions less than last year's shipments, and the falling off was caused by the difficulty in obtaining bottoms, for between ten and twelve millions will be carried over.

The boards and scantling exported to the United States amounted to nearly five million feet, or about a million less than last year. The laths exported totalled over ten and a half millions, which was practically the same as last year's exports. The piling exported numbered 23,790 pieces. Last year the total was 19,902 pieces. The shipments of the British Markets this season included a much larger proportion of hardwood than usual. It is probable that the timber used for shipbuilding will make this season's output the largest of any in recent years.

Two very fine three-masted schooners were added to the Parrsboro Registry this month and were both launched the same day. One, launched at Parrsboro, was of 456 net tons, and had her planking, rails, waterways and bowsprit of hard pine. She has stockless anchors, patent steering gear and gasoline power for hoisting and pumping. She is classed twelve years in Bureau Veritas. The other was launched at Port Greville and is a hundred tons smaller, but is in every respect a fine vessel. She is classed twelve years in American Record. Another three-master is ready for launching at Port Greville. This will make six schooners built on this shore this season—five three masters and one with four masts. The four yards where vessels have been built this year will each turn out a larger one the coming season. The one at Parrsboro, for which the keel is already being laid, will be a four-masted schooner of over six hundred net tons.

Liverpool and Manchester Stocks

The following report upon Liverpool and Manchester stocks for the month ending November 30th, 1916, is furnished by H. W. Lightburne & Co., Liverpool, and their St. John, N.B., representatives, John E. Moore & Co., Ltd.:

Spruce and Birch.

Month Ending 30th November, 1916.

Liverpool.

	Import.			Consumption.			Stock.		
	1914	1915.	1916.	1914.	1915.	1916.	1914.	1915.	1916.
N.B. and N.S. spruce and pine, stds.	2,120	1,960	1,330	3,060	2,850	3,890	6,340	13,680	11,090
Birch logs, loads	0	160	0	60	160	140	240	920	1,000
Birch planks, stds.	303	473	406	261	680	733	606	915	879

Manhcester.

Spruce, stds.	1,840	2,670	750	5,500	4,020	3,720	11,010	15,430	17,570
Birch logs, loads	40	120	500	120	160	60	740	1,180	940
Birch planks, stds.	42	18	91	121	188	36	740	770	558

Stocks in Manchester and Liverpool Combined.

	1912.	1913.	1914.	1915.	1916.	
Spruce.						
Manchester	8,250	20,320	11,010	15,430	17,570	
Liverpool	4,820	9,140	6,340	13,680	11,090	
	13,070	29,460	17,350	29,113	28,660	Stds.
Birch Logs.						
Manchester	500	240	740	1,180	940	
Liverpool	1,040	400	240	920	1,000	
	1,540	640	980	2,100	1,940	Loads
Birch Planks.						
Manchester	582	625	740	770	558	
Liverpool	776	818	606	915	879	
	1,358	1,443	1,346	1,685	1,437	Stds.

"Great Prices for Spruce"

The Timber Trades Journal in its issue of December 9th under the above heading says:—Spruce still holds the field for sensational prices. Figures which a month ago were looked upon as extravagant in the extreme are now current market prices; the rises lately having been almost as rapid as those which occurred at the height of the "boom" last season. In the Manchester district, where trade is good just now, some wonderful figures are made. The broader sizes are almost priceless; 3 in. x 11 in. is sold at from £35 upwards, and we have heard of as much as £38 being given. 3 in. x 9 in. are quoted variously at from £32 to £34, and 3 in. x 7 in. at £31 to £32. Stockholders feel fairly secure, as great prices are expected next season. As in all other markets everything points to higher prices next season for

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spruce; the cost of production has much increased, freight has for long been difficult to secure, and is expected to be scarcer and dearer next year, owing to the competition from other more valuable commodities, and, finally, Swedish whitewood, the only real competitor, is eagerly sought after by Holland. Thus spruce has a market of its own, and, high as prices are, the general opinion is that the top of the market is not yet reached. Still, it requires some courage on the part of merchants to refuse the very excellent figures which are now being offered.

New York Market Conditions

Simpson, Clapp & Co., wholesale lumber dealers, New York, N.Y., report under recent date, in part, as follows: From now on there will be little or no activity in building operations. Prices are holding firm, with practically no change, the ranges being about as follows: Spruce, random cargoes 2 in., $25 to $27; 6 to 9 in., $26 to $28; 10 to 12 in., $29 to $32; spruce furring, 1 x 2, D. 1, S. B. and B., $21.50 to $22; Eastern hemlock, mixed cargoes, $21 to $22, according to schedule; specified schedule, $22 or better; spruce boards, $23 or better, according to schedule; narrow and shorts, $21 to $22; white pine boards, log-run mill culls out at $23 or better, according to schedule.

Liverpool Market Report

Alfred Dobell & Company, Liverpool, Eng., in their monthly timber market report, under date of December 1st, say:—

Spruce deals.—In our last month's circular we reported that the improvement was well maintained and likely to progress. The improvement during the month has been more sudden and more pronounced than ever the most optimistic ventured to predict.

Douglas fir.—Owing to the continued scarcity of tonnage from the Pacific Coast, little business has been concluded. Arrivals have been limited to small parcels of clear quality lumber per liners. The stock, which is light, has been further reduced.

Lachine Canal Shipments

Although a smaller number of vessels was employed in the Lachine Canal trade during the past year, the tonnage carried was only 72 tons less than in the previous season, the total being 3,265,022 tons. The pulpwood carried increased from 137,951 cords to 141,850 cords. There was a decrease in the pulpwood carried to Canadian ports from 23,759 to 16,116 cords, but the tonnage carried to United States ports advanced from 114,192 to 125,734 cords. Naturally we look for a gain in the pulp shipped to the United States, having in mind the pressing demand for mills over the border. The total was 60,117 tons, as against 26,137 tons, while 2,000 tons went to Canadian ports, as against nil in 1915. The total tonnage was thus 62,117, an increase of 35,980.

The lumber trade with United States ports, as measured by the lumber brought down from the Ottawa River by United States canal boats, shows a decline. The total was 23,754,600 ft. b.m., or 39,591 tons, compared with 27,728,400 feet b.m., or 46,214 tons, a decrease of 3,973,800 feet b.m.

Calendars for 1917 Make Their Appearance

The first of the crop of calendars for the year 1917 to reach the office of the Canada Lumberman is an attractive one issued by the Campbell, MacLaurin Lumber Company, Montreal, P. Q., whose plant is located at Drummondville, P.Q., and who handle everything in spruce. Their calendar is an excellent one for office purposes, being of generous proportions and carrying a large date pad. A fine colored picture entitled "Hewing the Way," painted by Philip R. Goodwin, surmounts the calendar. Most lumbermen are well acquainted with the excellent pictures produced by Mr. Goodwin. This one is an exceptionally strong piece of work and will appeal to all who are interested in the lumber business.

The River Ouelle Pulp and Lumber Company, St. Pacome, P.Q., have sent out a large calendar for the year 1917 to their friends in the trade. The calendar is specially suited for offices, as it includes both an attractive colored picture entitled "A Timely Catch," by Philip R. Goodwin, and a large calendar pad, the dates upon which will be easily distinguished across the largest office.

One of the handsomest calendars that the Canada Lumberman has ever been favored with is one sent out by the Fassett Lumber Company, Limited, Fassett, P.Q. The picture upon the calendar is a remarkably fine specimen of the art of color printing and is a reproduction of a painting entitled "Venice the Golden," by Thomas Moran. The picture is handsomely mounted upon a cream colored board with moss green borders. A small calendar pad appears below the picture. Undoubtedly, this beautiful calendar will be greatly appreciated by all who are fortunate enough to receive a copy.

British Columbia Loggers Prospering

Mr. George McKay, Government Timber Inspector for British Columbia, reports that the output of logs on the British Columbia coast continues to be extensive. Practically all the camps are operating at full capacity, and nearly all of them, with the exception of a few of the more northerly, will operate throughout the winter, which is contrary to the usual practice. The past season has been a gratifying one from a logger's point of view. There was an excellent demand all summer, and prices have been high. The output has broken all records, and, although logging costs have been heavy and operations hampered by scarcity of labor, materials, and supplies, it is stated that most of the operators have made money, and the outlook is very promising. The enormous crop on the prairies in 1915 created a demand for lumber which kept the stocks of interior mills very low all summer and had an excellent effect also upon the output of the coast mills, which was naturally passed along to the logging industry. The high price secured for this year's crop is also counted upon to make the demand for logs at present prices fairly steady and continuous for some time to come. Manufacturers in British Columbia are looking forward to a very heavy Canadian demand next summer, and believe that the whole output of their plants will be marketable at good prices, even in the Canadian markets. The foreign demand, added to this, is counted upon to make a splendid year's trade for all British Columbia mills. Moreover, there will be a better supply of vessels for the export trade next summer than there has been in the past.

Cost of Cutting Large and Small Timber

By W. W. Ashe*

One of the problems which confronts the mill man who is operating timber having a wide range of size, whether the operation is in hardwoods or in softwoods, is the size of the small timber to which it is most profitable to cut; or, in case logging costs and freight rates are high, the problem may be the size below which the small timber is actually operated at a loss. Nearly every mill man operating such stands, consisting of mixed sized trees, has some general idea of the diameter below which it is not profitable for him to cut. He knows that the cost of logging increases as the size of timber becomes smaller, but few loggers have figures with which to establish the amount of such increase. The comparative figures which are given below seem to show that this increase, beginning at trees about 16 inches in diameter, is rapid for trees of smaller size, and for trees 12 inches and less in size, may be, for different steps in an operation, from two to four times as great as for trees more than 18 inches.

If logging were the only factor to be considered in the cost of production the problem of the profit in operating the smaller trees would not be so complicated; but in all operations there are two other elements which vitally affect the profit and loss sheet, and in some operations there is a third. One of these is the quality or grade of the lumber which is cut from the smaller trees. This is progressively of poorer quality and lower value, and also has a lower prices as the size of the trees becomes smaller. Both the increased logging costs and the decrease in the value of the product consequently tend to reduce the profit in operating the small trees. This tendency, however, is offset and to a certain point negatived in some operations by the second factor, which is the contribution of the lumber from this timber towards carrying a portion of the overhead charges—that is, office costs, interest, etc., and paying for construction of roads, mill, and other permanent equipment.

Consequently the higher the overhead charges and construction costs the greater is the possibility of profit in operating the small trees. In operations in which the interest charges are high and the cost of road construction and mill plant large per thousand feet of lumber, timber can be profitably cut to a much smaller size than when these items are low. For these reasons it is necessary to cut to a smaller diameter in an extensive band-mill operation than when milling with a portable outfit. With a portable outfit the overhead charges, as a rule, are low. The investment in construction is small.

A third element in many operations is to be considered: When stumpage is acquired by the acre, the cutting of the smaller timber reduces the average price per thousand feet of the timber which is milled. This factor has more weight when the stumpage has a high value; as the value of stumpage decreases it is of less consideration. Notwithstanding the fact that milling the smaller trees may reduce the average cost of stumpage and may lessen the overhead charges, there is reached at almost every plant, operating timber with a wide range in diameter, a point at which the increased logging costs and the decline in the grade and the value of the lumber of the smaller trees makes the operation unprofitable.

What is true in regard to the different steps in logging—felling and cutting up into logs (bucking), skidding from the point where the tree is felled to the skidway or logging pile, loading on cars, and hauling from the woods to the mill—is also true in regard to sawing at the mill into lumber. The time required to saw 1,000 board feet increases

*Forest Inspector U. S. Forest Service. Reproduced from the Southern Lumberman.

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rapidly as the size of the logs becomes smaller, and the cost of converting the small logs varies directly as the time.

Felling.

Table 1 shows the relative time in man hours required for felling and cutting into logs (in column 4 only felling) trees of different sizes. The last column gives the average comparative time of crews at three different operations for felling only. It shows that it requires four times as long to fell 1,000 feet, mill cut, in trees 6 inches in diameter, breast high (about 8 inches on the stump outside of the bark), as is required for the same operations for trees 30 inches and over in diameter. If the average sized tree in these operations was 24 inches in diameter, breast high, and the scale of the average log indicates that this was about the diameter, the cost of felling was about 40 cents per thousand feet. At the same time the cost of felling the 10-inch trees was 96 cents; that of felling the 8-inch trees was $1.12; that of the 6-inch trees $1.29. At one operation work in the same class of timber was being carried on both by contract labor and day labor. Columns 1 and 2 indicate the comparative efficiency of these two classes of labor in this operation for both felling and bucking. The crews paid by the day required about half as long again to fell and cut up a thousand feet of timber as did the contract crews which were paid on the basis of quantity, but the relative time required for felling and cutting up trees of different sizes remains nearly the same in each case.

Table 1—Felling and Bucking.

Time (man-hours) required for felling and bucking 1,000 board feet (mill cut). Operation No. 1.

Breast-high diameter of trees. Inches.	Three-man crew day labor.	Three-man crew contract labor.	Average of felling 3 operations.
	Time—Hours and minutes.		
6	....	....	6.25
8	....	....	5.40
10	....	....	4.50
12	7.25	6.10	4.15
14	6.45	5.30	3.45
16	6.30	4.50	3.10
18	6.00	4.20	2.45
20	5.40	3.50	2.30
22	5.25	3.30	2.15
24	5.05	3.15	2.00
26	4.50	3.00	1.50
30	4.25	2.40	1.45
34	4.05	2.25	1.40
38	3.50	2.10	1.40

The cost of skidding is a more important factor in the cost of production than felling. The cost of this operation is frequently 10 to 15 per cent. of the total cost of production. Table 2 shows the comparative time required for skidding logs of different diameters by team.

Table 2—Comparative Time Required to Skid 1,000 Board Feet, Mill Cut, in Logs of Different Diameter a Distance of 1,000 Feet.

Diameter of log. Inches.	Hardwoods, operation 1.	White pine, Operation 1.	Average of 5 Mountain operations.
	Skidding time—Hours and minutes.		
6	....	....	9.13
8	6.40	3.10	7.10
10	4.40	2.30	5.20
12	3.10	2.00	4.05
14	2.30	1.40	3.25
16	2.00	1.20	2.45
18	1.40	1.15	2.20
24	1.15	1.10	1.40
30	1.10	....	1.40

The figures, both for the separate hardwood and white pine operations, are low, much beneath the average, the skidding being under very favorable conditions. They are given, however, to permit a comparison between a light timber like white pine, which has straight, smooth-stemmed and easily handled logs, even when of the smaller size; and the heavier hardwoods, the smaller logs of which tend to be crooked and are handled at a relatively much greater cost than pine logs of the same size. Each operation, however, shows the same rapid increase in cost of skidding logs smaller than 14 inches. The average of the data shows that under conditions where it costs less than $1 to skid timber when the diameter of the average log is 20 inches, the costs are doubled when the size of the log is 14 inches, and trebled when it is 10 inches. In skidding, it is customary to handle small logs in connection with logs of larger size, when it is possible to do so. When there are only a few small logs, such as are obtained from the tops of medium sized trees, they are handled practically at minimum cost by attaching them to trails of larger logs. However, when small trees constitute such a large part of the stand that they form a large proportion of the trains, or when they cannot be skidded entirely in connection with trains of larger logs and it becomes necessary to handle them in separate trails, there is a decided increase in the cost of skidding the smaller timber. In securing data on the relative cost of skidding large and small timber it was necessary to consider the trails as they were actually made up and to obtain the average size of the logs in each trail. Most of the small log trails contained at least one medium or large-sized log, and the trails of large logs usually contained at least one small log. In stands which contain so large a proportion of small timber that it would be necessary to skid most of the small timber in trails without large logs, the relative cost of handling the small timber would be higher than is shown for any operation in the data presented. The data were obtained by timing individual teams, measuring the contents of each trail, and obtaining the size of the average log in each trail. The work of individual teams handling the same class of timber (heavy or light) and skidding on the same character of surface was then combined. The cost of skidding is more affected by loading teams below or beyond capacity.

Skidding with an overhead skidder is not comparable with team skidding. It shows, however, that the time required for handling 1,000 feet in logs which average 8 inches in diameter is practically three times that for handling 1,000 feet in logs averaging 24 inches in diameter.

The following table (3) shows in detail the spruce skidding figures. The logs were handled in bundles, the number of logs in each bundle averaging as shown. Actual length of logs varied from 8 to 24 feet. Actual skidding distance was 2,200 feet.

Table 3—Skidding Time With Logs of Different Sizes (Overhead Skidder).

Average diameter at small end of 16 ft. logs.	Time required to skid M board ft. a distance of 1,000 ft.; minutes.	Average No. logs per load reduced to 16 ft. basis.*	Board ft. per load, mill cut.
8	55	8	325
9	48	7.3	365
10	43	6.6	410
12	38	6	450
12	34	5.4	490
13	31	5	525
14	28	4.4	560
15	26	4	585
16	24	3.6	610
17	23	3.2	630
18	22	3.9	650
19	21	2.6	665
20	19	2.4	680

*The fractional logs are due to logs not having a uniform length of 16 feet.

The cost of loading varied almost directly with the number of logs per M. board feet mill cut. The cost of hauling varies with the weight of the logs, and consequently it varies somewhat more than the mill factor or the ratio of the number of board feet mill cut to the cubic feet of round timber. This amounts, as shown in the table, to doubling the cost of hauling between logs averaging 10 inches in diameter and 15 inches in diameter. In loading, as in skidding, large logs and small ones were mixed indiscriminately on cars, and it was necessary to compute the average sized log from the cars as loaded.

The following table (4) gives, for logs of different diameter, the loading time per M. board feet, the number of logs loaded per car, and the number of board feet per car of logs of different average sizes.

It requires nearly six times as long to load a car with logs which average 10 inches in diameter as to load a car with logs which average 24 inches. At the same time the car capacity in board feet is three and one-half times as great when loaded with logs averaging 24 inches in diameter as when loaded with logs averaging 10 inches. Shortening the length of logs also adds to loading time and decreases carrying capacity per car. The weight of a loaded car is practically the same, irrespective of the average size of the logs, consequently a locomotive can haul less than one-third of the volume in board feet of logs averaging 10 inches in diameter as of logs averaging 24 inches. In a rough country this would have considerable bearing on supplying a large mill with logs.

Table 4—Loading Time for Logs of Different Sizes.

Average diameter at small end of 16 ft. logs.	Loading time per M. board feet, minutes.	Average No. of logs per car.	Board feet per car.
10	29	23	1,150
11	23	22	1,360
12	19	21	1,580
13	15	20	1,760
14	13	19	2,000
15	11	18	2,200
16	10	17	2,420
17	9	16	2,620
18	8.3	15	2,820
19	7.6	14	3,020
20	7.1	13	3,220
21	6.6	12	3,420
22	6.1	11	3,600
23	5.5	10	3,770
24	5.1	9	3,940

The cost of piling and loading lumber varies almost directly with

GOOD FLOUR FOR YOUR CAMP

The best economy in the world is to buy that commodity which, being good, is the cheapest value on the market. This simply means, when choosing flour, don't be altogether influenced by price, but get a wholesome, nourishing, uniform product that will bake up into appetizing food. That is why we recommend for your camp

Cream of the West Flour

The Hard Wheat Flour that is guaranteed for Bread

For years this flour has been held up as an excellent example of the "pure food" idea, and we are jealous in guarding that reputation. Your men will readily respond to your efforts in giving them good food with more work and cheerful dispositions, which means a big money saving to you.

Our horse feed is distinctly good. Bullrush Crushed Oats (best grade Western oats) and Geneva Feed (crushed oats and cracked corn) are both worthy of attention for your stable.

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Jenckes Boilers

We make a Specialty of

Horizontal Tubular Boilers

for Saw Mill work. They are made in an extensive plant built and equipped for the purpose with all modern appliances.

The three prime elements of Design, Material and Workmanship receive equal and most painstaking attention, ensuring a boiler warranted to give perfect satisfaction and long service.

The Jenckes Machine Co., Limited

Sherbrooke Montreal Cobalt So. Porcupine St. Catharines Toronto Vancouver Nelson

the number of pieces of lumber which must be handled per M. board feet. The cost of handling lumber from logs 16 inches and over, when these costs are about 60 cents per M. feet, increases to 90 cents for lumber from logs 10 inches and under in diameter. There is, however, a porportional increase in handling extra wide lumber from very large logs and also in handling large sawed timber from large logs, but on the whole there is so small a proportion of lumber of these classes that it can be neglected as a factor in most eastern operations.

Sawing at Mill.

In keeping the sawing time at the mill the logs were separated into the heavier and harder woods, such as oak, beech, birch, and maple, and the softer and lighter woods, such as pine, chestnut, basswood, and poplar. Table 5, showing the saw time for the harder woods, does not parallel that for the softer woods, but rises appreciably as the diameter becomes smaller, indicating that a relatively longer time is required for sawing 1,000 feet. This is due to the fact that the harder woods of small diameter cut out absolutely less than the corresponding diameters of the softer woods, and consequently more logs must be handled per M. feet of lumber produced. This has already been noted as a reason for the relatively longer time required to skid small hardwoods than pine. Nearly all of the softer woods have smooth, round, and straight logs, even when they are of very small-sized trees, whereas the small-sized logs of oak, beech, and maple are prevailingly crooked and give a smaller mill cut.

The characteristic feature of the data from all mills is the rapid increase in time for sawing which takes place when the logs become smaller than 16 inches in diameter. In band operations, and the same would undoubtedly hold true in circular operations of large capacity, there is a gradual but very slight decrease in sawing time for logs larger than 22 inches, the time practically being the same for all diameters of the same length and kinds of wood of the same hardness above 25 inches. However, in the case of portable circular mills with low power capacity the sawing time after reaching a minimum again rises as the size of the logs increases, on account of insufficient motor power of the plant. The diameter at which this rise occurs varies with the motive power of the plant, but is lower for hardwoods than softwoods.

Table 5—Time at Mill Required to Saw 1,000 Board Feet from Logs of Different Sizes.

Diameter of log. Inches.	Band-sawed		Circular sawed
	Hardwoods.	Softwoods.	Hardwoods
	Time to saw 1,000 board feet—Minutes.		
6	55	39	..
8	44	23	..
10	27	18	60
12	23	16	51
14	20	15	45
16	18	14	41
18	17	13	39
20	16	13	38
24	16	13	36
30	16	12	38

In order to employ the results which are given for the different steps in operating in actuary calculation it is necessary to convert them to the unit base of costs of the particular operation. This unit base will vary (a) according as to whether the conduct of the operation is more or less efficient than those at which the data submitted were obtained (b) proportionately to the logging difficulties of the site, and (c) for sawing as the capacity of the mill. These variations affecting costs apply particularly to sawing at the mill and to skidding and hauling. There is less opportunity for variation influencing cost of felling, its controlling factor in variation in timber of the same hardness and log length being the efficiency of the individual felling crew, and there being more variation in the capacity of individual crews on specific operations than between the average felling work of different operations. For a specific operation, data for such a comparison can be secured in several ways, but the most accurate method is to test, for the operation being investigated, the different phases which are under consideration and to determine by means of a comparatively small volume of data so taken their relation to the standards which are here submitted.

Mr. A. Brodstedt, district freight and passenger agent of the Canadian Northern Railroad at Vancouver, B.C., reports that his road expects shortly to put in rates on lumber from Nanaimo, Chemainus, Ladysmith, Genoa Bay, Sidney, Patricia Bay, and other island points to prairie and Eastern Canadian points, serving the mills by means of car barges. The barges will take the loaded cars to Port Mann, where they will be transferred to the rails. Two of these barges, each with a capacity of eight cars, are ready, and a third, with a capacity of 13 or 15 cars, is under construction.

Thomas Crawford, a well-known lumber dealer of Tillsonburg, Ont., died suddenly of heart failure on December 21st, while seated at his desk in his office.

Cutting Dimension to Size

By J. Crow Taylor

The other day a neighbor who is a building contractor in a small way dropped in and was telling me about what he had seen at a new building going up near by. He said he never saw the frame of a building go up in as short time in his life, and when he came to watch the work closely he found two or three things that struck him very forcibly. One of these was that the concern furnishing the lumber had a motor truck with a dumping roller on it, and would drive up to the job and dump a big truck load of lumber on the ground in a few minutes' time, without any noise or disturbance, and that truck of lumber was as big as two or three ordinary wagon loads.

Then he noticed that the joists were all cut to length and size, and that the studding was cut to length, so that all the carpenters had to do was put the stock in place and nail it. He said they hadn't put the rafters up when he left, and he was wondering whether the raiters had been cut at the lumber yard or not. But, whether they were to arrive ready-cut or were to be cut at the building, he was very much impressed with the fact that the framing was all practically ready to set up when it arrived.

How Ready-Cut Framing Helps.

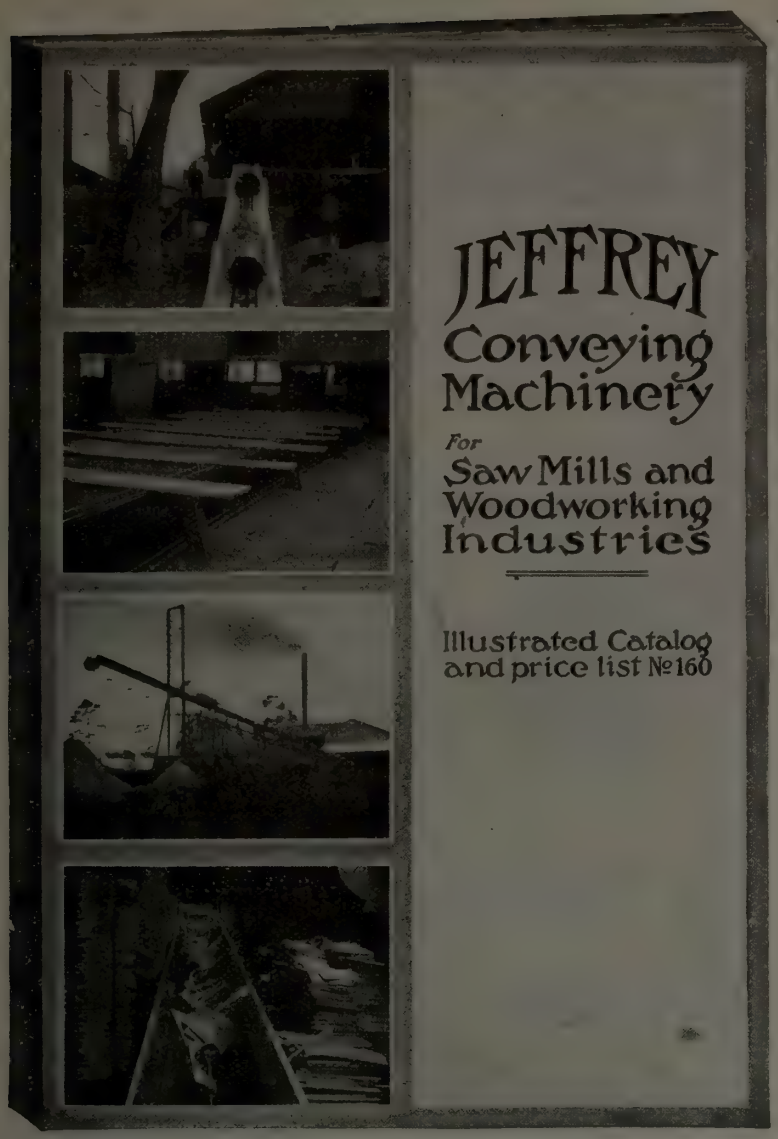
This was a rather pleasant thing for me to hear, because it was but a carrying out of an idea that had been advocated in these columns for about two years insistently, and was broached once four or five years ago as a possibility. In fact, this idea was set forth as a suggestion by me long before we had the spread-eagle advertisements of the ready-cut houses, and had it been taken up with activity at that time and made a feature of in advertising it would probably have headed off this latest mail-order propostion. Anyway, it is an idea that is worthy of attention by every retailer. Also it is an idea that some of the progressive retailers have already taken up with and have been advocating for a year or two. It is practical for the yard man to cut most all of the heavy dimension for an ordinary building to exact length before it leaves the yard, and to do this work better and for less money than it can be done by hand on the job. This not only simplifies the work for the contractor, but it is an indication of enterprise and a good thing to feature in advertising. It will help out with the regular contractor who knows how to do this kind of work, and it will also make a hit with the farmer or the builder who expects to do a little work himself to find that he can get his framing cut to exact size at the lumber yard and will have nothing much to do but nail it together.

What Some Retailers Balk At.

The one thing about it that causes some retailers to halt and hesitate is the fact that it calls for machinery. On this point some yard men take a very decided stand. I was talking the other day with a man concerned in the management of a great line of Western yards who says that they fight shy of machinery altogether. He gives as a reason for this the statement that practically all who have tried the addition of planing mills to the lumber yards have lost money by it. Consequently they fight shy of the planing mill idea. Also, in his mind, anything in the way of power-driven machines is suggestive of opening the door for a planing mill and to the chances for all profits to disappear.

A Point of Distinction.

Right here is a point of distinction that the sooner the retail yard men get it into their heads properly the better it will be for them. There is a distinction between putting in a saw or two and a few simple machines of this kind and equipping a planing mill. It is true that there is a natural temptation after getting one or two machines to keep adding on another here and there until quite a planing mill is equipped. This is easy to understand, because one machine suggests another, and the next one leads to a suggestion of something else, and so it goes. Perhaps there are some men who cannot resist temptation there any more than some other men can resist taking a second or third drink after having taken one, but these should prove the exception instead of the rule. In almost every case known to the writer, men who have tried the installation of a sawing machine or two have found it both convenient and profitable. They pay for themselves by making it easily practical to work up odds and ends of lumber into specific items that are readily saleable, and also they help out in ripping framing to specific dimensions and in getting out strips for carpenters or for any special purpose. One yard man who makes a sort of hobby of his rip saw, told the writer that he installed it primarily as a matter of convenience to the carpenters of the community, who often came to him and wanted a few strips or small pieces of odd size. Often the things wanted were not a part of his regular stock, so he concluded to invest in a table saw, that he might readily supply this call for odds and ends and accommodate his carpenter friends so that they would keep coming to him with their business. It not only served this purpose well, but he found it the best paying advertisement he had in his lumber yard, because he could work up all the culls and scrap around the yard into useful items, and frequently he would have a call for some dimension not in stock, which he could easily



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Pure wool Blankets, Sweaters, Underwear. Hand Knit Mitts and Socks. Palmers Shoe Packs, Buck and horse hide Moccasins, etc.

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produce by ripping from some other dimension. Then there is the main point, the point made above, of putting a man in shape to cut and trim framing in many cases to exact dimension before it goes onto the job, thus reducing the amount of hand labor required and lessening the cost of building operations. This is a kind of service that some are already giving and that the mail-order houses are featuring. So the retailer who would keep up with the times must prepare himself to give it, too, or else run the risk of seeing some of his trade go to a competitor who has enough enterprise to give this kind of service. With the present disposition to reduce all house plans to blue print details, it is comparatively easy to figure out the exact framing requirements, and then, with electric current available almost everywhere, it should be a very simple matter to have a few light power-driven machines so located that stock can be taken from the yard to trim to size and loaded on the wagon to go to the job without adding a great deal to the cost. What it adds to the cost plus a profit should, of course, be added to the selling price of the lumber; and, even at that, it will make it cheaper for the carpenter, because the power saw will do much more work at much less cost and do it better than the hand saw. Moreover, this practice of cutting stock to dimensions is the coming thing, and for any given yard man to ignore it or try to stop it by refusing to take up with it is simply to make trouble for himself and put himself in the way of losing business. The idea is making progress, and can't be stopped. The thing to do is to get into the game, help push it along, and make something out of it.

Figuring Out Where to Stop.

When it comes to installing machines for this work there are really two problems. One is that of figuring out when and where to stop and the other is that of choosing between the many offerings in the way of machines that which will fit in best with the needs in each case. When to stop and how many machines to put in is a problem that each man will have to answer for himself, because much depends both upon local conditions and upon individual inclination. There are some men who are naturally inclined toward manufacture, and with these men the disposition will naturally be to keep adding machines until they have a fairly well equipped planing mill shop. There are other men who are merchants by nature rather than manufacturers, men who prefer to buy and sell things and not manufacture things. To men of this type the natural inclination furnishes the right idea to follow, and that is to have just as few machines as possible and meet the needs of the day. Perhaps a rip saw and a cross cut or a single saw table or some combination machine will serve all their needs. The day is coming, however, when every yard man will practically be compelled to have something in the way of power-driven machines to properly serve the needs of his customers. There are many offerings to select from; there are simple rip saw tables with motors attached; there are others mounted on skids and rollers, for moving about on the yard; there are various combination machines, some for stationary shop use and some mounted for portability, and the list of offerings for this work furnishes quite an interesting study in itself. The only way to find out the extent of the list and to get an idea of the many different offerings is to write for catalogues and circulars to the machinery houses specializing in this class of machinery, make a thorough study of them, and then figure out what will best serve the needs in each individual case. The one point to bear in mind is, be governed by the needs and the possible service rather than by the first cost of a machine. You will soon forget what a machine cost you after it is once bought, and you will be impressed favorably or unfavorably by it, according to the service it renders. So study your needs and the service possibility of machines in making your selections.—St. Louis Lumberman.

The Salesman's Side of the Selling Problem

By Harry Wilbur*

Unlike prevailing conditions of a few years ago, the ethics of all business have improved, and it is particularly to be noted in the lumber trade, consequently reflected in the salesman.

The lumbermen generally have been the last to realize that their salesmen were assets, and there are still some manufacturers who are laboring under the belief that these men are liabilities. The different localities have salesmen's associations, but for some reason their possibilities have lain dormant.

"We have been offered employment under the supposition, and thereby complimented, that we could sell anything. Many of us have been handed an order book and price list and turned loose. There are among us men who, when started on the road, were not at all conversant with the grades, and some who could not scale. There are very few of us who can intelligently interpret a house or barn bill, and the ones who are able to talk of the cutting-up value of a piece of hardwood are rare indeed. How many among us, and we will include the manufacturers and sales manager, who are as able to discuss their produce as scientifically as the steel, sash and door, cement, and other salesmen both allied and in competition with us. Through good fortune alone, and in spite of his employer, has the lumber salesman been able to rank with the foremost in other industries.

Generally we are apportioned a certain territory, and the business derived from this territory we are credited with, the general presumption being that our efforts have made the volume possible. We are then in position to sleuth around our particular preserve and with tireless energy hunt out the poacher. An expense account, when correctly figured, becomes a part of your salary instead of a gratuity. The proper way to cut down the expense is by securing enough increase over the asking price to take care of your expense and part of your salary. This can be done in many ways without impairing your efficiency. Substitution, with the consent of the purchaser, is one, which can be accomplished only through your familiarity with the supply of other woods with which you are competing. We would generally find it difficult, and perhaps unremunerative, to boost the price on a constant consumer, but to take the market advantage of a buyer whose wants are supplied by lumbermen outside of our particular territory is not such a grievous error. There are many ways in which a price may be legitimately raised without detriment.

Correspondence, wisely indulged in, is of the greatest benefit to the salesman. You have your salesman's route sheet every week, or think you have. Would it accomplish anything for the general office to send out an occasional letter advising the arrival of their representative? By such a letter some good results might be accomplished; it might create in your customer a receptive frame of mind; it might lead him to suspect that he was trading with something other than a sawmill; it might be the means of creating an interest in some weather-stained stock you were about ready to move for the freight.

Should not the salesman be the last word between the misunderstandings of the consumer and the producer? By showing your customers an unlimited amount of confidence in your representative you increase his ability in their estimation.

The market price the conduct of the firm and the salesman are in this order the biggest essentials in marketing the product. It does not require any great amount of ability to sell lumber at a little less price than the best recognized of your competitors, but to obtain a standard price with the best producers should be the aim of both the manufacturer and the salesman.

A thorough knowledge of competing woods is very essential to the salesman. As a general thing he is conversant with the prices of competitive grades, but as a usual thing he is unaware of the underlying cause for a noted increase or decrease in the price. We have all experienced times when a certain wood was bringing a price out of proportion to what our other species were doing, and in cases of this kind it is not always policy to advance the price readily, for the reason that when the competitive wood comes back we will encounter an abnormal reaction. We are all liable to lay particular stress on the statement that we will have our day, and when the opportunity affords itself we generally take advantage of it to the utmost, losing sight of the fact that the consumer cherishes the same idea. A better average price could be maintained consistently by a judicious study of the fluctuating values. Your salesman may keep you informed as to prevailing prices, but a systematic research is necessary to keep informed as to the cause of a rise, whether it is a temporary boom or a healthy advance. We have all experienced certain times when a sharp advance was encountered, but very few lumbermen anticipated it. There are times when we will predict an advance to a customer, when our only argument is "because." An intelligent buyer is better able to call the turn on the market, because he has access to figures which we have not.

*Address delivered at Northern Lumber Salesmanship Conference.

The Salesman's Side of the Selling Problem

By G. C. Robson*

I shall first take up the sales manager's position of the past. It is unnecessary for me to recite the changes that have taken place in the manner of selling Northern lumber from the days when it was largely sold at a flat price per thousand feet for all grades better than cull up to the present time, when we are striving to see the dawn of a new day and merchandise our stock to the best advantage by sorting everything into its proper grade. The sales manager of hemlock and hardwood mills of the past occupied a very nominal position in the average case. His title up to a short time ago was largely a figurehead, and, to a more or less extent, he was paid accordingly. It was not expected, and he did not require, a very broad knowledge of the lumber industry, for the reason that he had very little to say concerning how the lumber was manufactured and handled, and his policy of selling was outlined to him by his employer.

Under such a condition it was not entirely his fault that he did not develop or broaden out, that he did not study the problems of merchandising and possibly consider salesmanship questions. Did he not reason that if his employer was satisfied with the manner in which the stock was disposed of it should be satisfactory to him?

There was little incentive and no real reason for him to make a study of the lumber industry to learn about grades, to find out how

(Continued on page 52)

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2 x 4 and wider sound wormy White Pine
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4 x 8 in. 10/16 ft. sound wormy White Pine
4 x 10 in. 10/16 ft. sound wormy White Pine
6 x 6 in. 10/16 ft. sound wormy White Pine
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4/4 x 10 and 12 in. No. 2 Culls

Also a few cars of No. 1 and 2, 4 ft. White Pine Lath and a few cars of 32 in. Mill Run White Pine Lath.

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EDGINGS

Ontario

The Fesserton Timber Company, Limited, Fesserton and Toronto, Ont., have purchased the season's cut of logs from Austin and Roberts, Minden, Ont., and will probably have them sawn at Minden.

The Blonde Lumber Company, Limited, Chatham, Ont., have disposed of the balance of their stock of lumber, doors, sash, etc., to W. A. Hadley, president of the S. Hadley Lumber Company, Limited.

The Canadian Northern Railway Company have recently erected at Foleyet, the first divisional point west of Sudbury, Ont., a tie and sawmill and a pulpwood barking plant. The machinery and equipment are housed in two mill buildings, each 30 x 120 feet, two storeys high. The pulp barking plant has a ten-hour capacity of 150 cords.

The old Brennen mills site at Hamilton, Ont., has been sold for about $100,000, and Loews Theatre Company, it is reported, will build a theatre on it. When M. Brennen & Sons mill was burned some years ago, they rebuilt at their main lumber yard adjoining the railway, and the old mill site has only been used to store small items of slow selling stock.

L. M. Wood, Toronto, president of the Standard Chemical, Iron and Lumber Company, is the chief promoter of the Michipicoten Power and Paper Company, Limited, with head office in Toronto, which has recently been incorporated. The company will build a mill at Michipicoten Harbor, Lake Superior. The initial capacity will be 150 tons of newsprint. A ground wood plant will also be erected with a capacity of 125 tons per day. The company's limits lie along the Algoma Central Railway between the Grand Trunk Pacific and the Canadian Northern Railways. It is stated that the erection of the mills and development of power will cost about $6,000,000.

The Beaver Board Timber Company, Limited, recently incorporated with Dominion charter will take over the interests of the Smith-Fassett Lumber Company at Charlton, Ont., located on the Black River. The property consists of sawmill, yards, trackage, stables, warehouses, etc., together with timber limits, camps, boats, logging and driving equipment. Additional timber limits have been secured adjacent to the property and negotiations are under way for further additions. This move on the part of the Beaver Board Companies has been taken in order to insure their supply of spruce wood for the operation of their large plant at Thorold, Ont., the capacity of which has recently been increased.

S. R. Armstrong, general manager of the Mattagami Pulp and Paper Company, Smooth Rock Falls, Ont., reports that splendid progress is being made with the erection of the dam and buildings of the new plant. The dam, which is to be 380 feet long, is well under way, and concrete is being poured. The screen room, digester room and blow pits are housed in and the foundations have been completed for the machine room, wood preparing plant, boiler house and power house. All the structures will be of reinforced concrete. The plant will be in operation by June, 1917, with an output of over 100 tons of unbleached sulphite per day. The company have 300 men at work on the mill and 250 men in the woods. They are taking out 70,000 cords of pulpwood this season.

Eastern Canada

Arthur Ste. Marie & Company, wholesale lumber dealers, etc., Montreal, P.Q., have been registered.

A. Henderson, Limited, has been incorporated with head office at Shawbridge, P.Q., and capital stock of $10,000, to carry on business as manufacturers and dealers in timber and lumber of all kinds.

Some time ago it was reported in the daily press that efforts were being made by a group of Montreal capitalists to secure control of the E. B. Eddy Company, Hull, P.Q., and that the offer made ranged from $9,000,000 to $10,000,000. It is now stated that a 60-day option to sell has been refused by the E. B. Eddy Company.

J. D. Volckman, Millerton, N.B., reports that he has completed arrangements for rebuilding the pulp mills at Millerton, which were destroyed by fire. The new plant will have a capacity of 15 tons of kraft pulp per day. The work will commence immediately and it is expected that the plant will be in operation some time during March.

Western Canada

The Athabasca Lumber Mills, Limited, have been incorporated with head office at Calgary, Alta., and capital stock of $250,000.

About 13,000,000 feet of timber will be taken out for the Cascade plant of the Forest Mills of B. C. The plant will be operated as early as possible in the coming spring.

The Sewall Lumber and Trading Company, Limited, have been incorporated with head office at Vancouver, B. C., and capital stock of $25,000, to

carry on business as foresters, loggers, timber and lumber merchants, planing mill and sawmill proprietors, etc.

Fire recently destroyed the shingle mill belonging to the Trout Lake Shingle Mill, Revelstoke, B.C. The loss included the electric light plant and new machinery, on which there was very little insurance.

Brooks and McVickers, Matsqui, B. C., have moved their shingle mill to McConnell Creek, about eight miles from Dewdney, where they have sufficient cedar in sight to furnish the mill for at least five years.

The Kootenay River Lumber Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of $250,000, to carry on business as manufacturers and dealers in lumber, timber, pulp wood, etc.

Arrangements are proceeding satisfactorily for the erection of a large sawmill at Seal Cove, B.C., by Mr. J. S. Emerson. Mr. Emerson will be associated with Mr. E. F. Duby, former general superintendent at the Brunette Saw Mills.

The Bickley Bay Logging Company, Limited, have been incorporated with head office at Vancouver, B.C., and capital stock of $10,000, to carry on business as lumber and timber merchants, and as manufacturers and dealers in lumber, logs, timber, etc.

The Canadian Pacific Lumber Company's sawmill at Pingston Creek, Upper Arrow Lake, B.C., was recently destroyed by fire. The mill was under lease to the Revelstoke Lumber Company. Fortunately the wind was in such a direction that the stock of lumber in the yards was saved.

The Union Lumber Company, Limited, have been incorporated as an extra-provincial company with head office at New Orleans, La., and provincial office at the Bank of British North America Building, Vancouver, B.C. R. L. Reid, K.C., is attorney for the company. The authorized capital is $150,000.

The Natural Resources Committee of the Board of Trade, Nelson, B. C., is investigating the possibilities of establishing a pulp mill at that place. Full particulars are being secured regarding the available supply of raw material, transportation costs, etc. The committee has entered into communication with several large companies which may be interested in establishing a pulpwood industry at that point.

The Carter-Halls-Aldinger Company, Limited, have secured an extra-provincial charter with an authorized capital of $250,000, to carry on business as manufacturers of lumber, timber, etc. The head office of the company is at 1010 Union Bank Building, Winnipeg, Man., and provincial office at Vancouver Block, Granville Street, Vancouver, B.C. R. L. Reid, K.C., Vancouver, is attorney for the company.

The Empire Pulp and Paper Mills Limited, Swanson Bay, B.C., have commenced to produce chemical pulp in commercial quantities. The capacity of the plant is already being increased, a third digester of large size being installed. The output of pulp will be from 35 to 40 tons daily when the plant is in full swing. The sawmill plant of the company has a capacity of 125,000 feet per day and will produce high grades of spruce. Over 250 men will be employed.

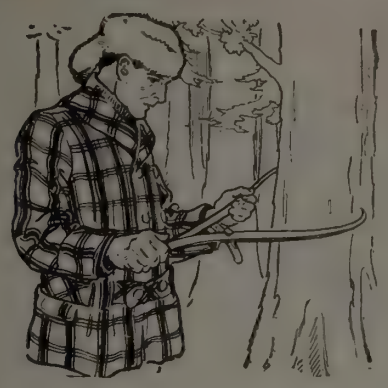
The Port Alberni Lumber Company's mill, Port Alberni, B.C., has been purchased by Mr. H. A. Dent, of the Alberni Pacific Lumber Company, and is being converted into a shingle mill, the capacity of which will be about 100,000 shingles per day. The plant will be operated continuously, 24 hours a day. The company already have on hand about three months' supply of shingle bolts and have completed arrangements for a sufficient supply to keep the plant operating fully.

Mr. Louis Bloch, managing director of the Pacific Mills Limited, which recently took over the pulp mill and other properties at Ocean Falls, B. C., reports that about 1,000 men are now employed in development work at that point and that the company expect to start manufacturing paper very shortly. When the plant is in operation the company will employ about 1,500 men at the mills and in the pulp limits. The average output at first is expected to be 100 tons of paper per day. Newsprint and kraft paper will be manufactured.

A report from Newcastle, N.B., states that severe winds and rain storms early in December played havoc with the operations of lumbermen in some parts of the country. Two million feet of lumber in the Burnt Hill Brook, belonging to Mr. D. J. Buckley, were flooded out, and most of it went adrift into the main river at Doaktown, where the ice held up the logs. If the river freezes up, the logs can be pulled out on shore and saved, but further soft weather will probably set them all adrift to the sea.

Since Confederation, in 1867, Quebec has derived a total direct revenue of more than $40,000,000 from the sale of cutting privileges on crown timber lands. The revenue from this one source now averages well over $1,500,000 annually. The area of crown land under license to cut timber is approximately 44,500,000 acres, while 78,000,000 acres remain unlicensed.

Considerable excitement has been caused among British Columbia shingle manufacturers by a recent order of the Canadian Pacific Railway forbidding the passage of their freight cars across the international boundary, which it is feared will practically paralyze the export trade in British Columbia shingles.



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lumber should be handled to keep it from depreciating through the process of drying, how it should be sorted into grades to make it ready for the market, and what the effect of competitive woods and substitutes was having on this product, or where the best markets might be to sell the stock he handled.

The same condition that made the sales manager a disinterested employe is, to a more or less extent, the position of the manufacturer with reference to his sales department. He has looked upon it as one of the least important of all branches of his industry. To very little extent did he take his sales organization into his confidence or encourage them to broaden out in their merchandising.

This same manufacturer has been busy trying to reduce the cost of his logging a few cents or reducing the cost of manufacturing his lumber a little, entirely overlooking one of the main features of his business that could and should bring him results. Were not our forests fast becoming depleted and was not one of his worries what the future generation would do for building material? Should he not reason that the consumption of lumber would go on from year to year, and would take care of all that he could produce, and that if he manufactured it the public would consume it? Why should he consider a change in his manner of selling his output?

One dark day a few years ago he awakened to the fact that other materials than lumber were going into building construction where lumber had formerly been used; that substitute materials were coming into the market and with a remarkable display of energy, the spending of hundreds and thousands of dollars for advertising, the employing of the most skillful and intelligent minds in the sales and advertising world, and, in fact, he found that they were carrying on such a vigorous campaign that the public became convinced that lumber would, in a few years, be a thing of the past and they must hasten to use these substitutes before this timber supply was entirely gone. When he found that the usual amount of lumber was not being consumed by the building public and that he often had more lumber piled in his yard than in former years, he consulted his neighboring manufacturer to see if the same condition existed with him, and together they visited other manufacturers, and when their notes were compared they found they were all in the same position.

This led them to believe that they should band toegther more closely than they had before, that confidence must be instituted between them, that they should establish systems to determine what it is costing them to produce their lumber and what the results were when sold. When this was done and they analyzed these figures they found, through a bad business condition that had existed for several years, that they were not only losing money, but were losing ground to the substitute materials. This led to further investigation, and they became aware that their merchandising was very poor, that other commodities, through more intelligent salesmanship, were taking their trade away from them, and this was the start of the real awakening of the lumberman to consider the more intelligent merchandising of his lumber.

In the study of this problem he found he must take into consideration his sales organization in attempting to accomplish better results along these lines, and naturally the first place he went was to the sales manager. He gave the sales manager more scope, encouraged him to make a study of the lumber industry, fostered salesmanship, and together they commenced to study the characteristics of the wood they manufactured, how it should be sawed for the market, and, in fact, they really started to go to school in the lumber business.

The sales manager at once became aware that he knew very little about the product he sold, but he started in to learn, and, as a result, the average sales manager of to-day has a better and higher knowledge of the lumber business as a whole than did the employer of a few years ago, but we have not reached anywhere near the intelligent knowledge we should have of this industry, and only through a continuous study can we hope to bring about that type of merchandising and salesmanship that this great business should warrant. The average lumber sales manager of the North, handling hemlock and hardwood, occupies a different position in many ways than do most of the lumber sales managers of other wood-producing territories. In this northern country we have from fifteen to twenty different types of timber, mixed in its growth, and as a rule each type goes into a different general use. In each of these various timbers there are several grades when manufactured into lumber, and each year sees additional sorting necessary to meet the trade's requirements.

This advanced method of merchandising Northern lumber must be considered carefully by the sales manager.

He must have knowledge of each of these different kinds of woods, the knowledge of the grades covered by each, know the value of the same, as well as the values of competitive lumber materials, and know the market and trade which will consume each of these items, but this knowledge alone will not bring the results that are desired unless a more thorough, high type of salesmanship and merchandising is cultivated in marketing it.

The sales manager of the future must not only be a successful salesman himself, but he must have ability to handle a sales force successfully and to secure successful co-operation between his department and the manufacturing department. These branches must work together for one general result, and that is to bring about a proper type of manufacturing and merchandising.

Mr. Robson Black, secretary of the Canadian Forestry Association, was the speaker at the Montreal weekly electrical luncheon on December 6. His address was listened to by one of the largest gatherings at the series of luncheons, and was illustrated by a number of slides showing lumbering and forest protective methods in different parts of Canada and also picturing the enormous losses caused by forest fires. Other slides showed the effects of forest neglect in different parts of the world. Mr. Black spoke of the effectiveness of the telephone in protective systems, and gave details of government action, and inaction, in some of the provinces. He dwelt upon the enormous loss to the community in disregarding means to protect this important part of Canada's natural resources, and showed that a comparatively small expenditure would save much life and property.

Good progress is being made in connection with the New Brunswick forest survey under P. Z. Caverhill, provincial forester. Already 200,000 acres have been covered and some of the maps are practically complete. The information already secured shows that tragic results have followed the indiscriminate placing of settlers upon the lands, many having been allowed to commence farming in districts where the soil will only support tree life.

A substantial support to the general lumber market in the United States is being supplied by the demand for lumber for use in the construction of new railroads. New projects contemplated for Arizona will necessitate the consumption of a total of about 620,000 railroad cross ties, the equivalent of approximately 5,000,000 feet of lumber.

Nine vessels, with an aggregate of 7,709 tons, were launched from the shipyards at Bath, N.B., during 1916, including four schooners, two barges, one steam yacht, and two scows, this being exclusive of government-built craft. The prospect for 1917 is still more encouraging, five vessels being already on the stocks.

The Government of New Brunswick are preparing plans for the complete reorganization of their forest protection system.

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There is also a small four-drum engine for tightening guys.

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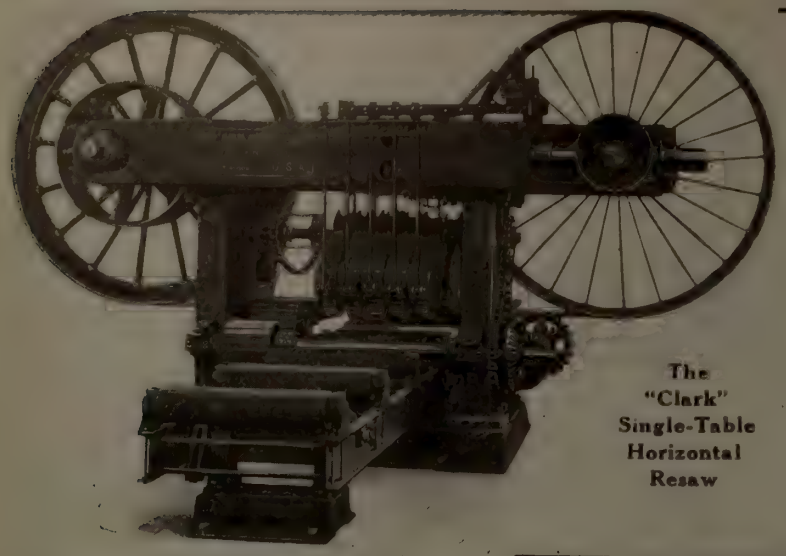

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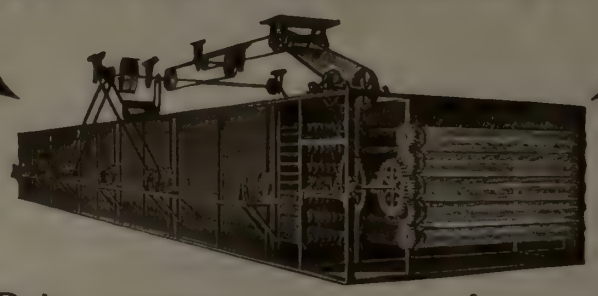

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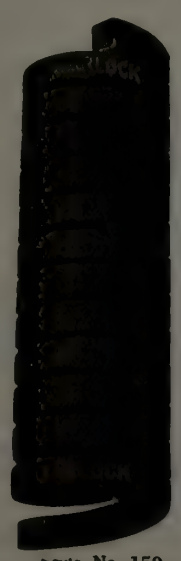

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1 x 8 common and dressing	33 00	34 00
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1 x 12 common and dressing	38 00	40 00
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5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
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1 x 8 box and common		28 00
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1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		26 00
2 x 4 to 12 in., 12 and 14 ft.		25 00
2 x 4 to 12-in., 18 ft.		28 00
2 x 4 to 12-in., 20 ft.		30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in B. C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet: 8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		35 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		36 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		36 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		37 00
10x20, 18x20, up to 32 ft.		37 50
6x18, 8x18, up to 32 ft.		37 50
6x20, 8x20, up to 32 ft.		38 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain		35 00
Fir flooring, 1 x 4, edge grain		38 50
Fir flooring, 1 x 4, flat grain		30 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1 4-ft. pine lath		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath		4 25
1½-in. mill run hemlock lath.		4 00
XX B. C. cedar shingles		2 60
XXX 6 butts to 2-in.		3 45
XXXXX		3 85

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	**60 00**
Ash, white, No. 1 common	**45 00**
Ash, brown, 1sts and 2nds, 4/4	**50 00**
Ash, brown, common and better	40 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	**60 00**
Birch, 1st and 2nds, 4/4	44 00
Birch, No. 1 com. and bet., 4/4	**35 00**
Birch, 1st and 2nds, 6/4 and 8/4	46 00
Birch, 1st and 2nds, 10/4 and 12/4	60 00
Birch, 1st and 2nds, 16/4	62 00
Basswood, 1sts and 2nds, 4/4	45 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	19 00
Basswood, 6/4 and 8/4, 1sts and 2nds.	48 00
Basswood, 6/4 and 8/4, com. and bet.	40 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	**40 00**
Soft Elm, No. 1 com. and bet., 4/4	35 00
Soft elm, No. 2 and 3 common	19 00
Soft elm, 6/4 and 8/4, 1 and 2	45 00
Rock elm, 1sts and 2nds, 6/4 x 8/4.	**55 00**
Rock elm, No. 2 com. and bet. 6/4 and 8/4	**40 00**
Soft maple, 1sts and 2nds, 4/4	**33 00**
Soft maple, com. and bet., 4/4	**25 00**
Soft maple, 6/4 & 8/4, 1sts and 2nds.	**35 00**
Hard maple, 1st and 2nds, 4/4	40 00
Hard Maple, common and better, 4/4	33 00
Hard maple, 12/4 & 16/4, 1sts and 2nds	50 00
Red oak, plain, 1st and 2nds, 4/4	62 00
Red oak, plain, No. 1 co., 4/4	43 00
Red oak, plain No. 2 com. 4/4	32 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	68 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	**75 00**
White oak, plain, 1sts and 2nds, 4/4	62 00
White oak, plain, No. 1 com., 4/4	**42 00**
White oak, plain, No. 2 com., 4/4	32 00
Red and White oak, plain, 1sts, and 2nds, 5/4 and 6/4	**60 00**
Red and White oak, plain, No. 1 com. 5/4 and 6/4	**45 00**
Red and White oak, plain, No. 2 com. 5/4 and 6/4	**35 00**
Red and White oak, plain, 1sts and 2nds, 8/4	**70 00**
Red and White oak, plain, No. 1 com. 8/4	**50 00**
White oak, plain, 1sts and 2nds, 12/4 and 16/4	**80 00**
White oak, ¼ cut, 1sts and 2nds, 4/4.	89 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	92 00
White oak, ¼ cut No. 1 common	57 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00
Pine good strips:		
1-in.	39 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	24 00	26 00
Pine, 1-in. x 4-in. s.c. strips		26 00
Pine, 1-in. x 5-in. s.c. strips		27 00
Pine, 1-in. x 6-in. s.c. strips		30 00
Pine, 1-in. x 7-in., s.c. strips		27 00
Pine, 1 x 8 in. s.c., 12 ft. to 16 ft.		36 00
Pine, 1-in. x 10-in. M. R.		34 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in.	22 00	24 00
Pine, s.c. and bet, shorts, 1 x 5		23 00
Pine, s.c. and bet., shorts, 1 x 6		25 00
Pine, s.c. shorts, 6'-11', 1"x10"		26 00
Pine, box boards:		
1" x 4" and up, 6'-11'		20 00
1" x 3", 12'-16'	21 00	22 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	22 00	24 00
Pine, mill culls stock, 1 x 12		23 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	14 00	15 00
Red pine, log run:		
mill culls out, 1-in.	20 00	22 00
mill culls out, 1¼-in.	21 00	23 00
mill culls out, 1½-in.	21 00	23 00
mill culls out, 2-in.	23 00	25 00
mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	17 00	18 00
1"x 4" and up, 12'-16'	21 00	23 00
1"x 9"-10" and up, 12'-16'	25 00	27 00
1¼"x 7" 8-9" and up, 12'-16'	25 00	27 00
1¼"x 10" and up, 12'-16'	25 00	27 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Wmite Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 8 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	50 00
6/4 x 8 and up No. 1 and better	60 00
8/4 x 8 and up No. 1 and better	62 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00
No. 1 Cuts	
1 in., 8 in. and up wide	40 00
1¼ in., 8 in. and up wide	55 00
1½ in., 8 in. and up wide	57 00
2 in., 8 in. and up wide	60 00
2½ and 3, 8 in. and up wide	75 00
4 in., 8 in. and up wide	85 00
No. 2 Cuts	
1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	44 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1-in. x 4-in.	27 00
1-in. x 5-in.	27 00
1-in. x 6 in.	28 00
1-in. x 8-in.	28 00
1-in. x 10 in.	30 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00
No. 1 Barn	
1 inch	33 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	28 00 30 00
1¼, 1½ and 2-in.	30 00 30 00
2½ and 3-in.	28 00
No. 3 Barn	
1 inch	26 00 30 00
No. 1, 1, 1¼, 1½, 2-in.	26 00 30 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	24 00 25 00
Mill Culls	
Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 85
No. 2, 48-in. pine	4 50
No. 1, 48-in. pine	5 00
No. 3, 48-in. pine	4 00
Hemlock Lath 48 in.	4 00

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimension	S. 1 S. and 1. E. 6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4, 6, 8..	15 00	18 00	21 50	22 50
2 x 10	19 00	19 50	22 50	23 50
2 x 12	19 00	20 00	24 50	24 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH

Mountain Stock

Dimension

2 x 4, 8, 12, 14, 16	22 50
2 x 4, 10, 18, 20	24 50
2 x 6, 8 to 16	22 50
2 x 8, 8 to 16	22 50
2 x 4-6 and 8 in., 24, 26, 28, 30, 32 ft.	30 50
2 x 10 and 2 x 12, 8-16 ft.	27 50
2 x 10 and 2 x 12, 18, 20, 22 ft.	29 50
2 x 10 and 2 x 12, 24, 26, 28, 30, 32 ft.	31 50
No. 1 Common Boards	
4 inch	22 00
6 inch	24 50
8, 10, 12 inch	26 50
Mixed widths	25 50
Flooring	
4 or 6 inch No. 1	36 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	25 00
Shiplap—Finished	
6 inch	23 00
8, 10 and 12 inch	24 00
Siding	
6 inch No. 1	36 00
6 inch No. 2	34 00
6 inch No. 3	26 00
Lath	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed)	4 50

PINE—ROUGH TIMBER

3 x 6 in.; 8 to 16 ft.	28 10
3 x 8 in.; 8 to 16 ft.	25 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	28 00
4 x 10 to 10 x 10, 8 x 8, 6 x 12 in. up to 32 ft.	30 00

BRITISH COLUMBIA COAST FIR

Dimension S1S. & E

2 x 4 in.; 6 and 8 ft.	21 50
2 x 4 in.; 12 and 14 ft.	22 50
2 x 4 in.; 10 and 16 ft.	23 50
2 x 4 in., 18 and 24 ft.	24 50
2 x 4 in.; 22 and 24 ft.	25 50
2 x 4 in.; 26 to 32 ft.	27 50
2 x 10 and 2 x 12 in.; 10 to 16 ft.	24 00
2 x 10 and 2 x 12 in.; 18 and 20 ft.	26 00
2 x 10 and 2 x 12 in.; 22 and 24 ft.	27 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	29 00
2 x 14 in.; 10 to 16 ft.	29 00
2 x 14 in.; 18 and 20 ft.	31 00
2 x 14 in.; 22 and 24 ft.	32 00
2 x 14 in. 26 to 32 ft.	34 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	25 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	26 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	27 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	28 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	30 00
6 x 6, 6 x 8, 8 x 8 in.; 8 to 16 ft.	28 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft.	28 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft.	29 50

FLOORING

Nos. 1 and 2, 1 x 3 in., E. G.	40 00
Nos. 1 and 2, 1 x 4 in., E. G.	39 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in., or 6 in., F. G.	31 00
No. 3, 1 x 4 in. or 6 in.	28 00
No. 3 Edge grain $3.00 per M. extra.	

SHIPLAP

B. C. Fir, 6 in.	22 50
B. C. Fir, 8, 10, 12 in.; 8 to 16 ft.	23 50
No. 2 Shiplap, 6 in.	22 50
No. 2 Shiplap, 8, 10 and 12 in.	23 50

FIR, COMMON BOARDS, S 1 S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	21 00
Common Boards, 8 to 12 in.	22 00
No. 2 Mixed widths	17 00
No. 2 Boards, 8 to 12 in.	18 00

SHINGLES

XXX B. C. Cedar	2 85

LATH

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's.	4 50
Cedar lath ⅜ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00

(Continued on page 60)

International—

The Life Preserver of Men, Minutes and Money

It's the minutes that count. Make sure you get all the minutes you pay for. Install International Time Recorders. They give you accurate and impersonal records of every man's coming and going. The late employee reprimands himself. His time is automatically printed in red ink. The International is always on the job and performs its duty day and night with unfailing punctuality. Men, minutes, money, the pillars of your business. Guard them with one of the 260 styles of Internationals. Prices from $100.00 upwards.

Complete details on request.

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F. E. MUTTON, General Manager
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Toronto Phone—Col. 622.

MONTREAL
W. A. Wood, Jr., Sales Agent
Cartier Bldg., Cor. McGill and Notre Dame Sts
Phone—Main 7025

CURRENT LUMBER PRICES — Continued

No. 1 Moulding 8/4	62 00
No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	34 - 35	21 - 23	13 - 15
5/4 to 8/4	37 - 38	24 - 25	14 - 15
10/4 to 16/4	43 - 45	31 - 33	20 - 22

RED BIRCH

4/4	45 - 47	28 - 30	14 - 16
5/4 to 8/4	46 - 48	30 - 32	16 - 18

SAP BIRCH

4/4	41 - 43	28 - 30	18 - 20	
5/4 and up	41 - 43	28 - 30	18 - 20	

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	34 - 36	23 - 25	15 - 17
Thicker	34 - 36	25 - 28	18 - 19

PLAIN OAK

4/4	50 - 52	31 - 33	19 - 21
5/4 to 8/4	52 - 54	33 - 35	21 - 23

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	51 - 53	28 - 30	18 - 20
10/4 and up	64 - 66	40 - 42	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in...		98 00
Selects, 1 to 2 in.		88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	72 00	74 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	38 00	40 00
No. 1, 1 x 8	37 00	38 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10		37 00
No. 2, 1 x 8		35 00
No. 3, 1 x 12	31 00	32 00
No. 3, 1 x 10	30 00	31 50
No. 3, 1 x 8	30 00	31 00
Canadian spruce boards	25 00	27 00
Spruce, 10 in. dimension	28 00	30 00
Spruce, 12 in. dimension	29 00	31 00
Spruce, 9 in.		29 00
Spruce, 8 in. and under dimen.		28 00
10 and 12 in. random lengths, 10 ft. and up		29 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00	24 00
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	22 50	23 00
1 x 2 and 1 x 3 furring, p 1s		22 00
Clipped and bundled		4 25
1½ in. spruce laths		4 00
1½ in spruce laths	3 80	

New Brunswick Cedar Shingles

Extras	3 50	3 60
Clears		3 30
Second clears	2 30	2 40
Clear whites	2 00	2 20
Extra 1s (Clear whites in)		1 60
Extra 1s (Clear whites out)		1 50
Red Cedar Extras, 16-in. 5 butts to 2-in.		4 00
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Clear Perfections, 5 butts to 2¼		4 80
Washington 16-in. 5 butts to 2-in extra red clear		3 65

45 Years Ago and Today

The fan shown in the upper illustration has been in operation for more than 45 years, and although it was under water during the Dayton flood in 1913 it still gives satisfaction.

Today Sturtevant Fans are made with the same care and with the same dependability as in former years.

Write for Catalogue

B. F. Sturtevant Co.
of Canada, Limited
GALT - ONTARIO
Montreal Toronto Winnipeg
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We Manufacture the Following Well Known Brands

"Elkco," "Elk Steel," "St Marys," "Keystone" and "Rotex"

FIRE BRICK

Each brand is specially suited to a separate use. We have the experience to manufacture and supply the finest grade of Fire Brick for the varying uses of the Lumber Industry. The same brick may not meet the requirements of your Dutch Oven and of your Refuse Burner.

This is a product that should have your most careful attention. When so much depends directly on the successful operation and dependability of Fire Brick in your plant, it will repay you many times to make a most careful investigation before the installation. Let us show you where our product has been successfully used for years. Let us suggest a special brand for your particular purpose.

We have an interesting catalogue that will be sent you. It will give you an insight into the proper methods of Fire Brick construction.

Elk Fire Brick Co. of Canada, Ltd.
HIGH GRADE FIRE BRICK and CLAY
Sun Life Bldg., Hamilton, Canada

A Lombard Hauler
Ready to Ship

We have in stock one used Lombard Steam Log Hauler. It is in good condition and having finished the hauling for one of our customers we offer it at an attractive price. It will do your hauling cheaper than horses.

Ask us about this.

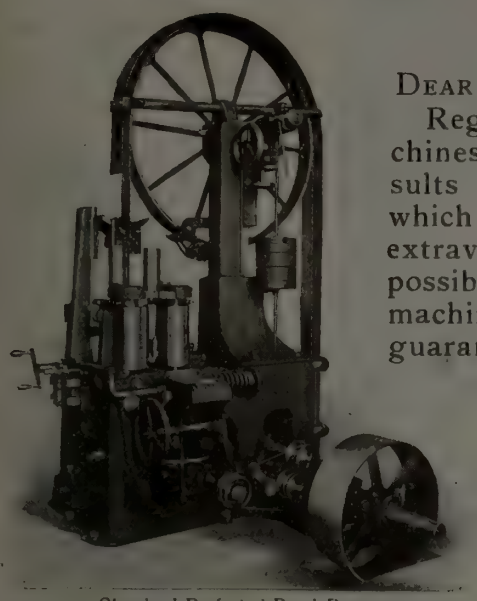
The Jenckes Machine Co.
SHERBROOKE, QUE. Limited

Montreal Office—E. T. Bank Building. Vancouver Office—Exchange Building.
Toronto Office—Traders Bank Building. Ontario Factory at St. Catharines.
Warehouses carrying stocks—Cobalt, South Porcupine, and Vancouver.
Western Agents—Canadian Western Foundry & Supply Co., Calgary, and Edmonton, Alta.

The Surest Economy!

a Specialty—Not a Side Line

BAND RESAWS



Standard Perfected Band Resaw.

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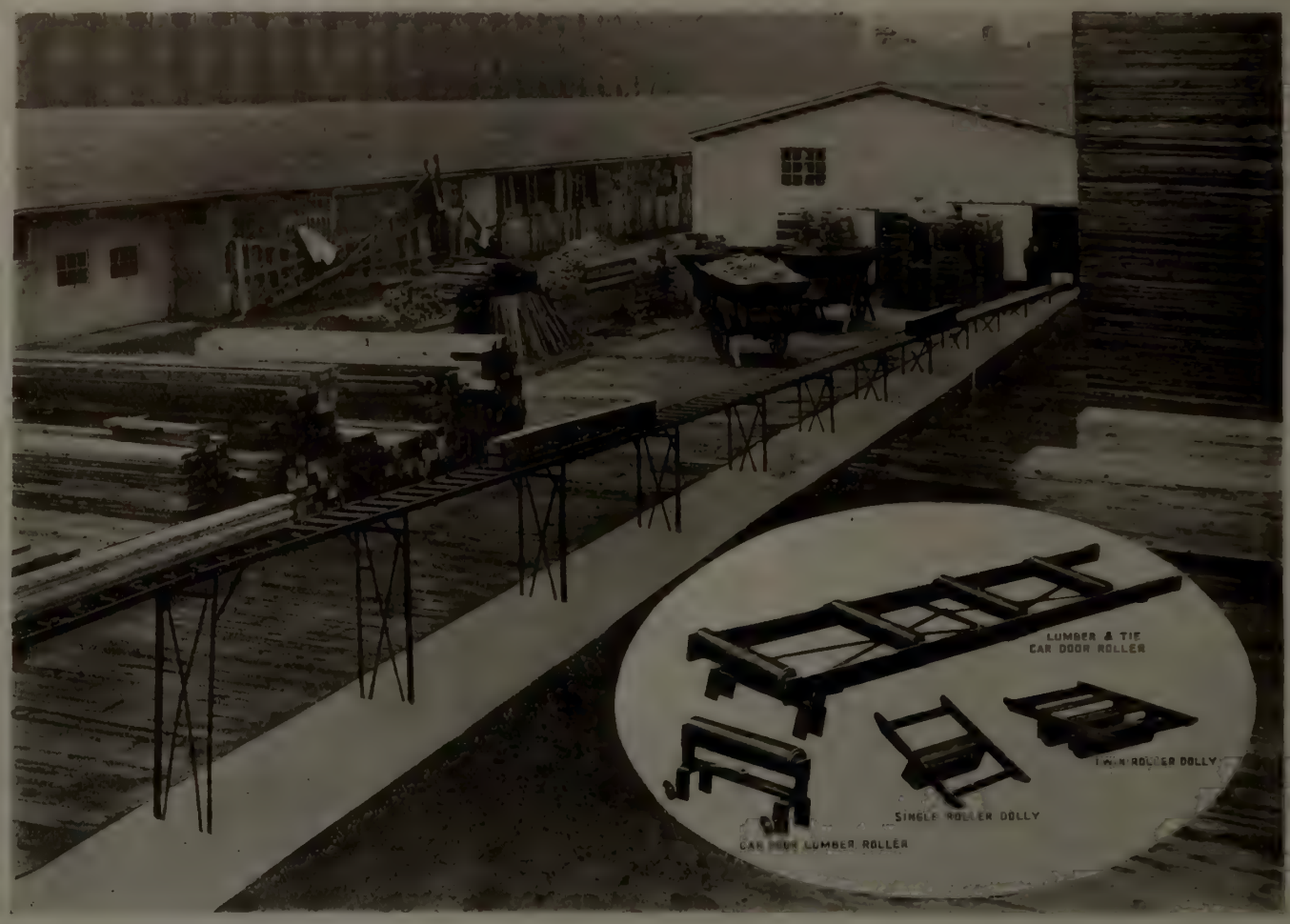

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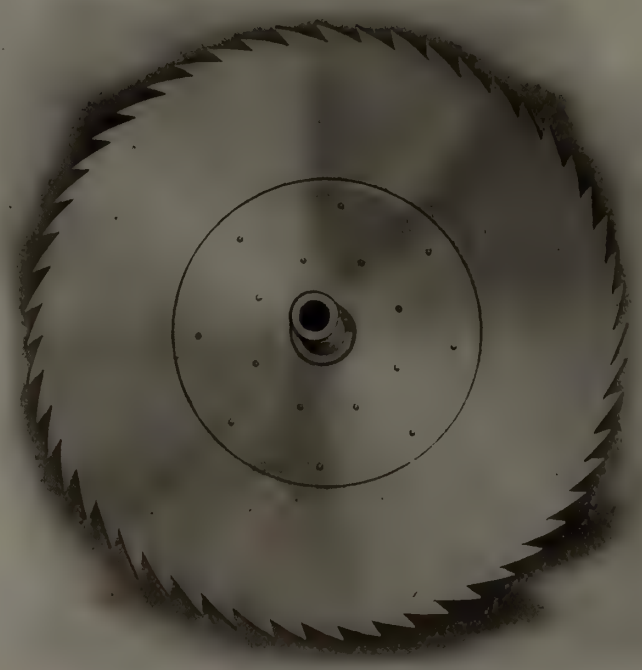

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Deputy Minister.

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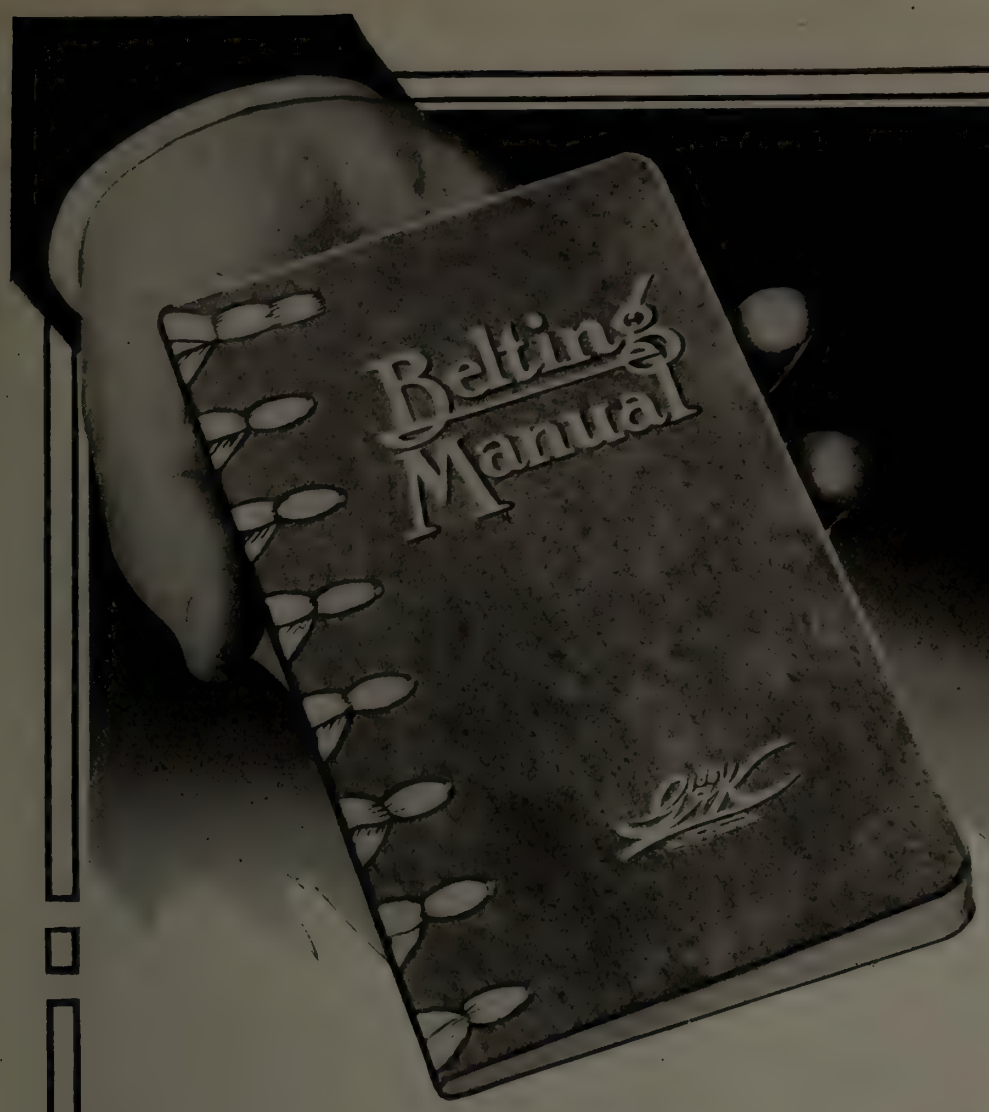

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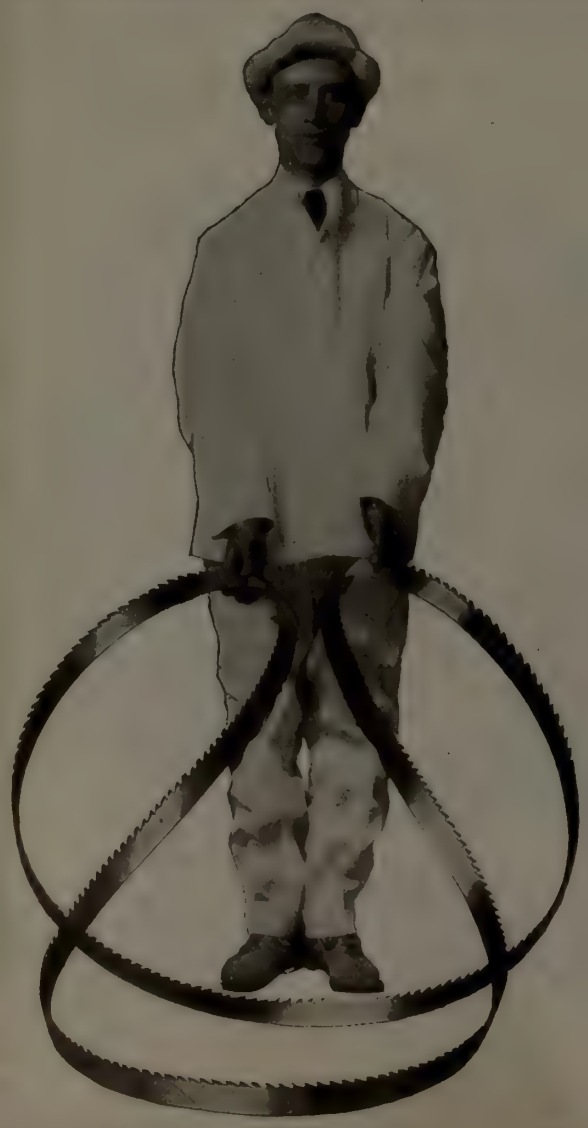
New Ontario Colonization Co.
River Ouelle Pulp & Lumber Co.



ATKINS
BAND and RE-SAWS

We have achieved an enviable reputation for supplying SAWS which stand up to their work longer, with less re-fitting than any other SAWS in the world. If there is any doubt in your mind, we stand ready to prove it to you.

A Perfect Saw for Every Purpose

Send for our 248 page book on Saws. The most valuable and interesting Saw book ever published. Tells you just what you want to know about SAWS, MACHINE KNIVES and SAW FITTING TOOLS.

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E. C. ATKINS & COMPANY INC.

Makers of Sterling Saws

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J. J. TURNER & SONS

PETERBOROUGH, ONT.

Government Contractors and the largest Manufacturers and Dealers in Canada of

Lumbermen's Tents, Bed Ticks, Grey Blankets, Nose Bags, Waterproof Goods, Steel Ranges and General Camp Outfits.

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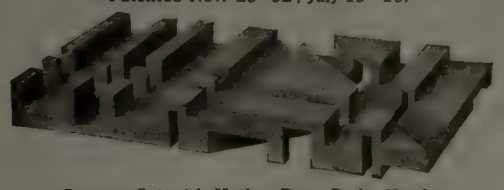
Patented Nov. 29 '92; July 19 '10.



Grooves Cut with Huther Bros. Dado Heads

Fits Any Saw Mandrel

A Huther Bros. Dado Head consists of two outside cutters and enough inside cutters to make the required cut. This Head will cut perfect grooves, with or across grain, any width. It is an easy Head to keep in perfect condition, has a simple quick adjustment, and may be enlarged any time after purchase. Sent on approval and if not satisfactory return at our expense.

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LOGGING LOCOMOTIVES

Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

MONTREAL LOCOMOTIVE WORKS, LIMITED,

DOMINION EXPRESS BUILDING, MONTREAL, CANADA.

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog " H."**

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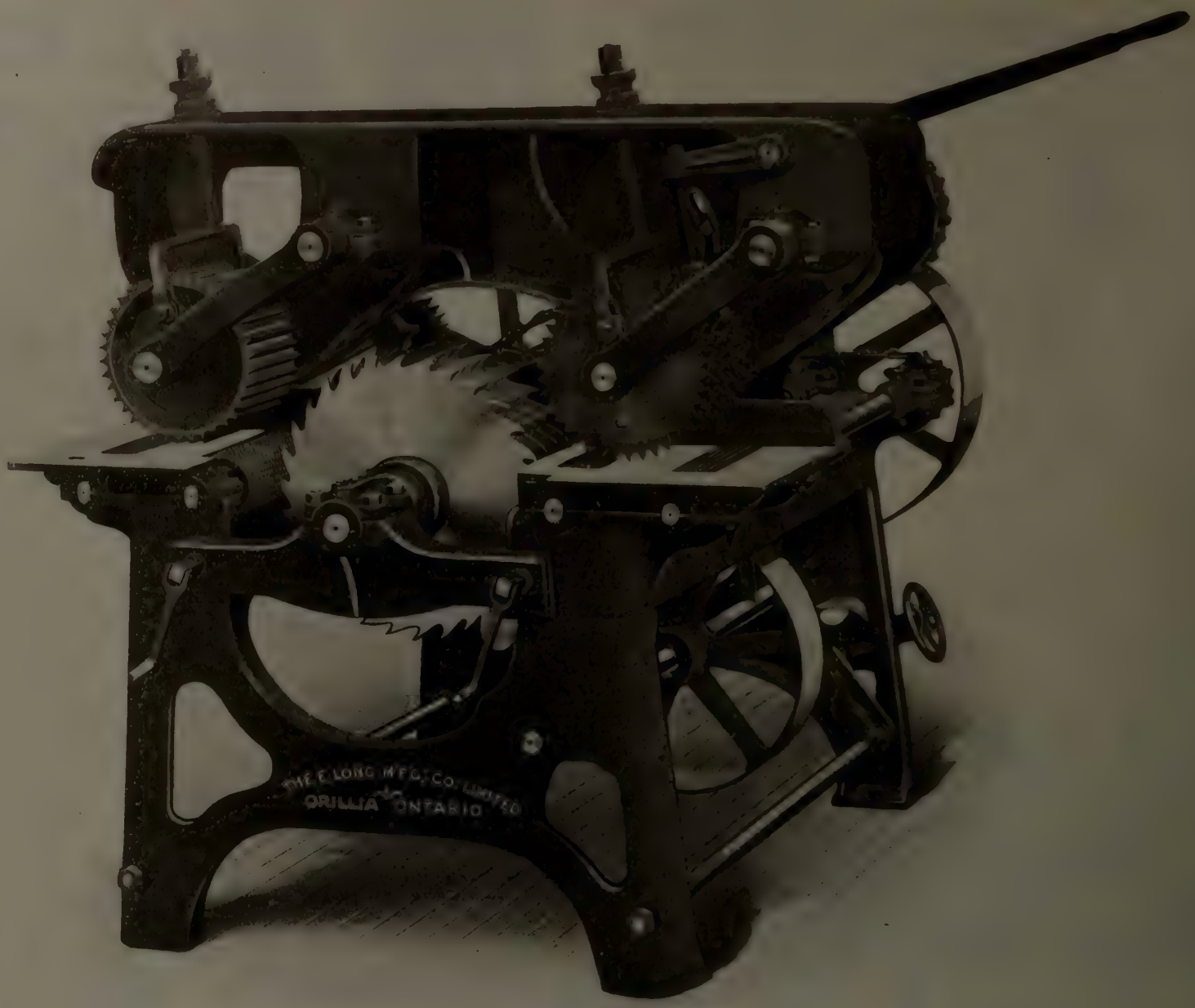
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

The Peter Hay Knife Co., Limited

GALT, ONTARIO

MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel



No. 3 Bolter

One of the main reasons for the great popularity of our No. 3 Bolter is its capacity for continuous work.

The machine is so substantial in all the essential parts — frame, bearings, etc. — that you seldom see the slightest trouble develop.

Another reason is the uniform, accurate work turned out under all conditions. In large mills where they produce large quantities of lath, etc., our No. 3 Bolter is almost universally used.

The machine has our usual one-piece frame construction, with all bearing and working parts easily accessible for adjustment, etc. Carries four 20-inch saws, spaced ordinarily for lath bolts, but can be arranged for any spacing of saws for cutting slats, pickets, etc. Floor space, 5 feet x 4 feet 6 inches; weight, 2,800 pounds.

Send for detailed description and dimensions.

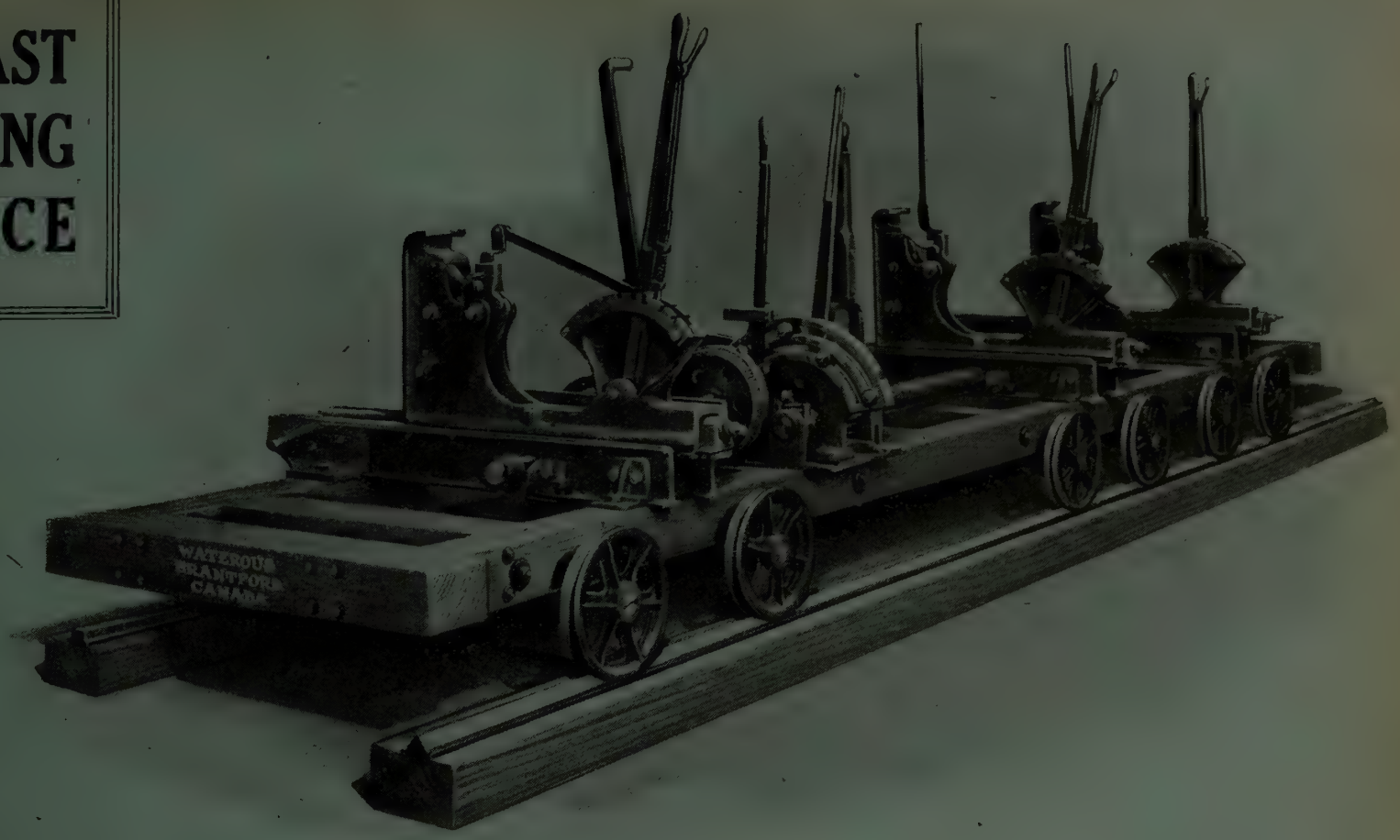
Catalogue No. 102

This mark on your saw mill machinery is an indication that your lumber manufacturing equipment is the best and most economical money can buy.

The E. Long Manufacturing Company

Orillia Limited Ontario

FOR FAST CUTTING SERVICE



Waterous Carriages

Steel Girder and All-Steel—For Every Size Mill

We build Saw Carriages.

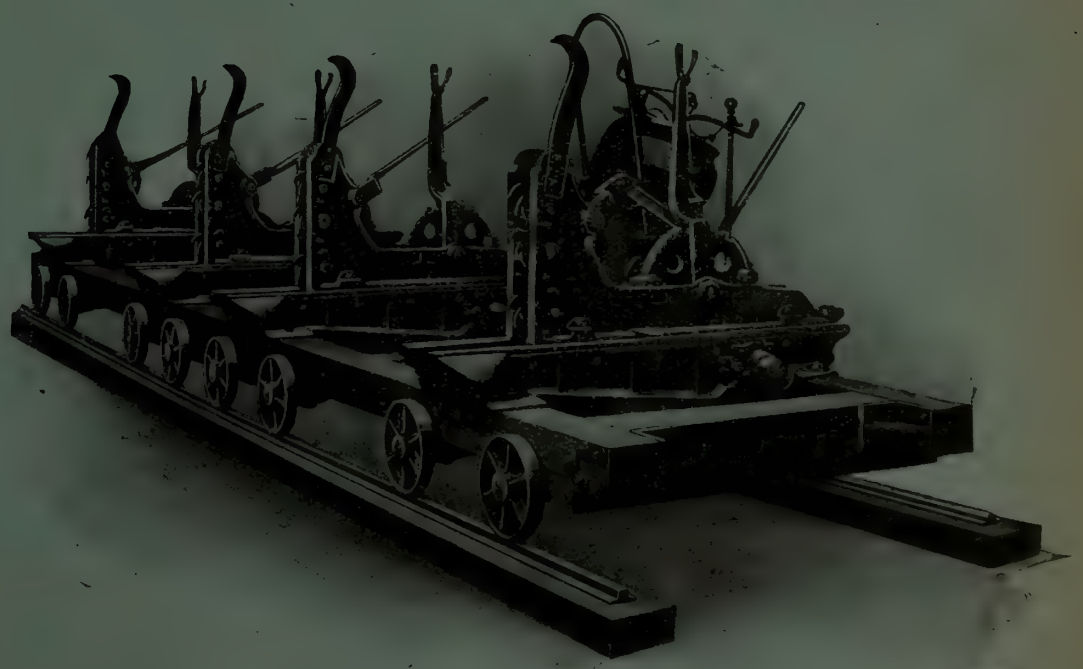
Double Girder Carriages
With log openings of 24 in. to 50 in.

All-Steel Rack Carriages
With opening 36 in. to 72 in.

All Steel-Screw Carriages
With openings 60 in., 72 in., and 84 in.

No matter what size your mill or what kind of logs you are handling we have the right carriage for your use.

Our carriage equipment is of the very best. Waterous Dogs will hold the logs in place to stay; Waterous Setworks are accurate and durable; Waterous strength of construction will hold the carriage up to its work under the rack and wear of severe usage longer than most makes.



Write us for catalogues and prices

The Waterous Engine Works Co., Limited, Brantford, Canada

H. B. Gilmour
Vancouver, B. C.
Winnipeg, Man.

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$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station;** packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in **30** lb. and **60** lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

The Low Head Plant
with
SMITH HYDRAULIC TURBINES

has established a reputation for real service that is second to none in the field of water power utilization. It is the result of all-round efficiency, hydraulic as well as mechanical, and has been attained by the careful consideration of every feature entering into the design of turbine equipment.

Our thorough investigation of the conditions peculiar to any proposition assures a practical and economical solution of the problem.

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S. Morgan Smith Co., York, Pa.

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Montreal Toronto Winnipeg

The J. C. McLaren Belting Co.
Limited
General Mill Supplies MONTREAL

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The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

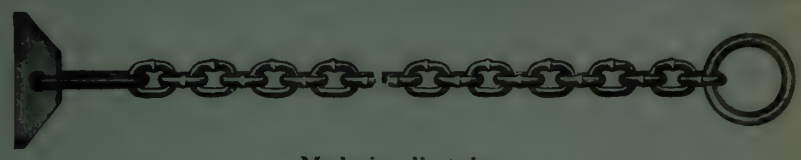
It's a Pink anyway you take it, and it's the best Peavey made

Canada Lumberman & Wood Worker

Dart Union Pipe Couplings

LESSEN MAINTENANCE COSTS

Your Jobber Sells Them.



Made in all styles

Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada Write to Fully Guaranteed

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BUY GOOD HARNESS

Here's a big problem solved.
Forget your harness troubles. Alligator Brand is used year in and year out by wise lumbermen without the least trouble or delay of any kind.
Made to wear through sleet and snow and under most trying conditions.
The leather, tanning workmanship and hardware are good. Our 50 years experience is a guarantee of quality.
We have a big interesting catalogue giving complete descriptions of several harness models that will fill your needs. Write for it to-day.

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HAIR BELTING

Woven from Camel's Hair Yarn

Manufactured and guaranteed by

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)

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When its efficient service is not to be relied on.
It will pay you to get acquainted with **REAL PUMPS**
as built by

The Smart-Turner Machine Co., Limited

HAMILTON - CANADA

BUY EMPIRE GOODS WHEN EFFICIENCY IS GUARANTEED.

J. M. T. Reducing Valves

PATENTED

We offer the one successful valve that will positively reduce the steam pressure from boiler to required power and keep the lower pressure even, continuously. In constructing this latest type reducing valve we have gone over every previous good idea along this line, and our present type has proven absolutely reliable under all conditions. We sell the J. M. T. Reducing Valve under a positive guarantee. Send for illustrated folder, giving method of operation, prices, installations, etc., of this valve.

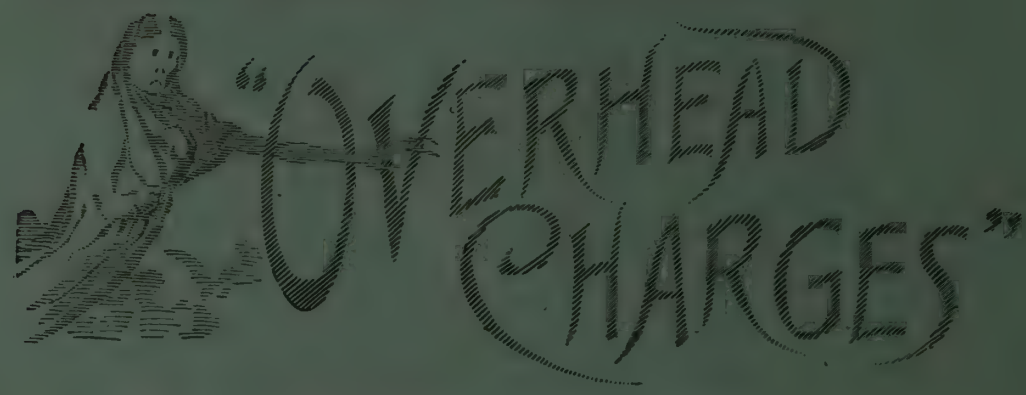
The James Morrison Brass Mfg. Co., Limited

93-97 Adelaide Street West, TORONTO

MADE IN CANADA.

Alphabetical Index of Advertisers, Page 58 - Classified Directory to Advertisements, Page 60

That grim spectre—



RELENTLESS and ever present in Factory Operation is the spectre of Overhead Charges.

Its ravages among the profits of your business must be constantly checked. One of its most active lieutenants is *Power Wastage* —caused by belt slippage over metal pulleys. Many thousands of dollars are wasted yearly in Canadian Factories and workshops where Wood Pulleys would save 50% of the waste.

Actual scientific tests show that on the average you can buy *four* Dodge Wood Split Pulleys with the money you now lose by waste from one Metal Pulley. Therefore we appeal to Presidents of Companies, Managers and Superintendents of Factories, Engineers and others, to personally supervise the buying of their pulleys and specify always—

DODGE

WOOD SPLIT PULLEYS

SOLE MAKERS:
DODGE MANUFACTURING CO. Limited, TORONTO

5

Bartram Brothers, Ltd.

Wholesale Lumber

OTTAWA :-: CANADA

SPECIAL

100,000 Ft. 1 x 4 x 6/16 Dry Merchantable Spruce

Pine Spruce

Lath Shingles

FOR SALE: Standing Timber, in Large or Small Blocks and Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Wood Machine for 22-in. wood.

1 Edger for ripping dry lumber, installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

The Parry Sound Lumber Co., Limited, 26 Ernest Ave. Toronto, Can.

Geo. Gordon & Co., Limited

Cache Bay - Ont.

Manufacturers of

RED and WHITE PINE

White Pine Timber in Stock:

6 x 8	—	10/16'	—	50,000'			8 x 10	—	12/16'	—	40,000'
8 x 8	—	12/16'	—	30,000'			10 x 10	—	14/16'	—	130,000'
6 x 10	—	12/14'	—	6,000'			12 x 12	—	10/16'	—	130,000'
				4 x 10	—	10/16'	—	60,000'			
				4 x 12	—	"	—	80,000'			
PLANING MILL				2 x 12	—	"	—	100,000'			DRY KILN

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

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Fassett, Que.

LONGFORD HEMLOCK

1916 Cut

420 M.	1x4 and up, No. 2 hemlock.	25 M.	2x6—10 No. 1 hemlock.
300 M.	2x6 and up "	60 M.	2x6—12 "
400 M.	2x4 "	30 M	2x6—14 "
45 M.	1x4 and up No. 1 hemlock sidings.	40 M	2x6—16 "
7 M.	1x4 No. 1 hemlock.	7 M.	2x8—10 "
65 M.	1x6 "	40 M.	2x8—12 "
25 M.	1x7 "	70 M.	2x8—14 "
55 M.	1x8 "	35 M.	2x8—16 "
15 M.	1x10 "	6 M.	2x8—18 "
15 M.	2x4— 9 "	2 M	2x8—20 "
50 M.	2x4—10 "	10 M.	2x10—10 "
75 M.	2x4—12 "	20 M.	2x10—12 "
95 M.	2x4—14 "	30 M.	2x10—14 "
40 M.	2x4—16 "	50 M.	2x10—16 "
3 M	2x4—18 "	15 M.	2x10—18 "
		5 M.	2x10—20 "
		6 M	2x12—12 "
		12 M.	2x12—14 "
		17 M.	2x12—16 "

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HAMILTON, ONT.

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BLEACHED SULPHITE & LUMBER

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SPRUCE, JACK PINE & WHITE PINE CULLS
CRATING STOCK in No. 1 and No. 2

Special

1,000,000 Ft. 1 Inch HEMLOCK, 4 to 14 Inches Wide

SEND US YOUR ENQUIRIES.

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ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

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St. John, N.B., St. Camille and Lake Frontier, Que., cutting SPRUCE and PINE Lumber for British, United States and Canadian Markets.

Also

LATH, SHINGLES, PULPWOOD and RAILWAY TIES

Manufacturing and Grading Right

Trade *Mark*

Address all enquiries to our Head Office, ST. JOHN, N. B.

Buy your stock from the dealer who has

LUMBER

cut from Horseshoe Logs

Manufactured by

The C. Beck Manufacturing Co., Limited

Penetanguishene, Ont.

Stock and milling facilities unsurpassed

"WE AIM TO SERVE YOU WITH THE BEST"

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Our four mills can supply your every want in **SPRUCE LUMBER.** The above view shows a section only of stock on hand at our mill No. 1. Our Electric Resawing and Dressing mill turns out the best work in Canada. If you want Pine or Spruce Lumber for any purpose, a postal card will place our Monthly Stock and Price List on your desk. We also manufacture Spruce Lath and Full Count White Cedar Shingles—***"BEAVER" BRAND***

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Watson & Todd Limited
OTTAWA

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SPRUCE

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The
Harris Tie & Timber Co.
Ottawa - Canada

Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

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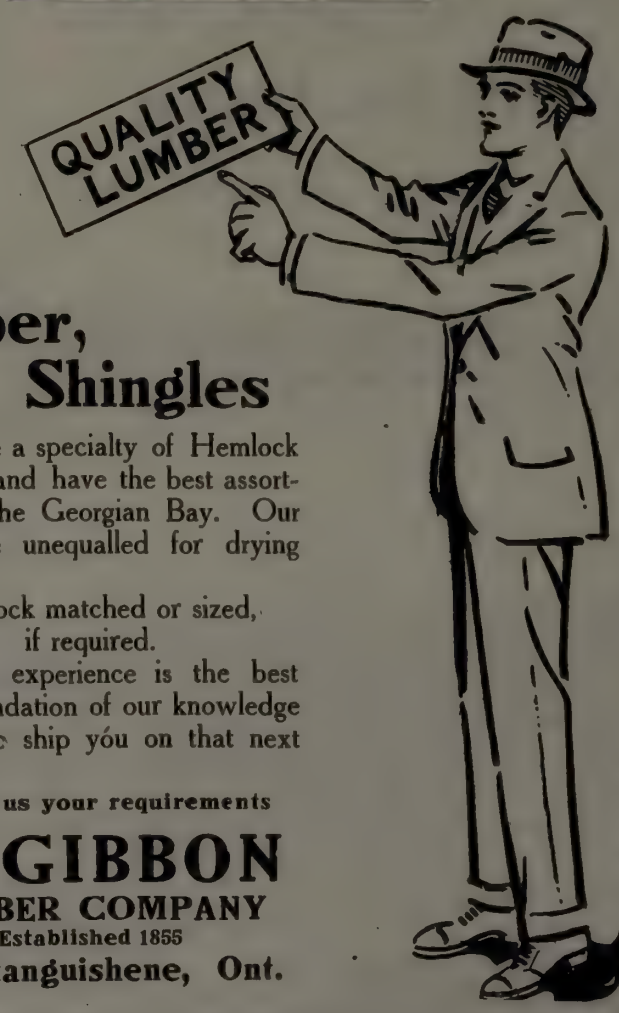

Lumber, Lath, Shingles

We make a specialty of Hemlock Billstuff, and have the best assortment on the Georgian Bay. Our yards are unequalled for drying lumber.

All stock matched or sized, if required.

Our long experience is the best recommendation of our knowledge of what to ship you on that next order.

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Established 1855
Penetanguishene, Ont.

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Wholesale Lumber Dealers and Selling Agents for

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Mills at
DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

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Also Mills at:
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On Nat. Transcontinental Ry.

Mill Yard.

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Planing Mill in connection with Saw Mill

ROSSED SPRUCE PULPWOOD

Full supply of Seasoned Lumber always on hand.

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Mills:—Jacksonboro, Ont. Located on Transcontinental R.R., 32 miles west of Cochrane.

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1″, 2″ and 3″ to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

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Chapleau, Ontario

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In dealing with us you secure the following ***advantages:***

The finest long and short leaf Yellow Pine.
Genuine Louisiana red gulf Cypress and Arkansas White Oak.

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

California White Pine
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and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask LOUIS WUICHET

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BASS WOOD

We offer for immediate shipment—
1″ and 1½″ Dry Basswood

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We offer in Birch End Stock—
1 x 8½″ 1 x 9″ and wider
1 x 6 and 7″ 1½″ to 4″

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Fir Timbers
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Cedar Shingles XXX, XXXXX and Rite-grade
Cedar Bevel Siding, Barn Boards, Boat Lumber, Etc.

View of our fir mill from log pond, Vancouver, B. C.

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Representative, CHAS. PLANT

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THOSE WHO, FROM TIME TO TIME, HAVE FUNDS REQUIRING INVESTMENT MAY PURCHASE AT PAR

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Principal repayable 1st October, 1919.

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Proceeds of this stock are for war purposes only.

A commission of one-quarter of one per cent will be allowed to recognized bond and stock brokers on allotments made in respect of applications for this stock which bear their stamp.

For application forms apply to the Deputy Minister of Finance, Ottawa.

DEPARTMENT OF FINANCE, OTTAWA,
OCTOBER 7th, 1916.

Ten Band Mills to Serve You

Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
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Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

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Prices promptly given on all enquiries.

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VANCOUVER, B. C.

Manufacturers of
Red Cedar Shingles, Bevel and Bungalow Siding.

We secure the highest prices for our products of any Red Cedar manufacturers in existence.

EXEMPLIFIES EXCELLENCE
The Reason is "QUALITY"

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We are Buyers of
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Send full particulars as to grade, quantity and prices

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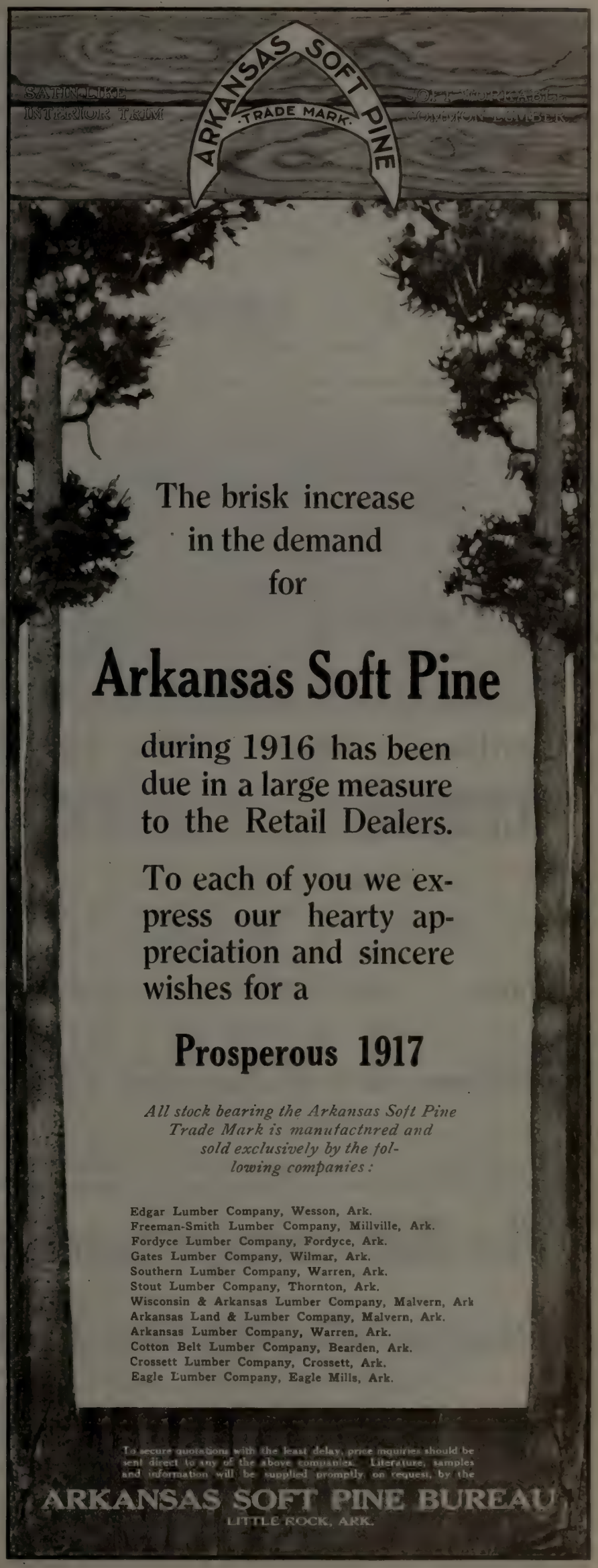

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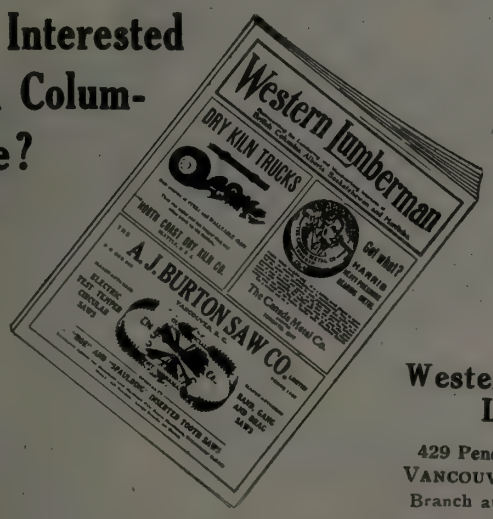

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22,000 ft. 8/4 No. 1 Com. and Bet. Sap Gum.

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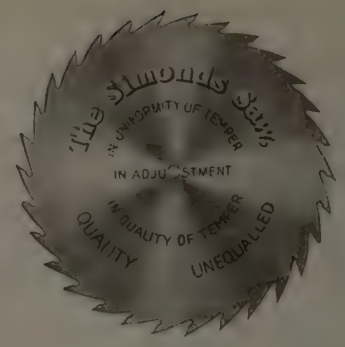

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MONTREAL TORONTO WINNIPEG

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.

Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N. Y., under the Act of Congress of March 3, 1879.

Vol. 37 Toronto, January 15, 1917 No. 2

The annual meeting of the Canadian Lumbermen's Association is to be held at Toronto on February 6th. Arrangements are being made for an exceptionally interesting meeting.

Good-Fellowship—A Great Trade Stimulus

Good fellowship is the greatest force for promoting business, as well as social interests that the world has ever known. When two men, or any number of men, find out that their interests are mutual and that all are equally good fellows and equally concerned in the development of their mutual interests, the foundation has been laid for the promotion of those interests upon a firmer basis than can be secured in any other way. The lumber trade offers many good instances of this fact, and unfortunately also, many instances of the opposite fact, that by failing to pull together, the members of the trade not only neglect important possibilities for promoting their mutual interests, but actually increase the difficulties of doing business.

Practically everyone in the lumber trade in Toronto today can look back upon a time, only a few years ago, when there was nothing in the way of association work being done in their interests and when, as a result, there was a great deal of unnecessary bad feeling, but the 145 lumbermen who took part in the first annual dinner of the lumbermen of Toronto on December 28th showed nothing of such a spirit. In fact, it would have been impossible for an outsider, seeing the splendid feeling that prevailed at the dinner, to realize that within only a few years there had been little or nothing of such co-operation. The instance is a remarkable one, illustrating more clearly than anything else that the possibilities opened up by such a coming together are almost unlimited.

Undoubtedly the most astonishing revelation of the dinner was the friendliness which has been created among the members of the trade by the existence of the Lumbermen's Section of the Toronto Board of Trade. The weekly meetings of this organization have been producing good results. They have created a firm feeling of friendship among the members of the trade which could scarcely have been said to exist formerly, and have made it possible for the members of the trade to do business upon a far more pleasant and therefore a more profitable basis than was formerly possible.

Aside from this point, the most interesting feature of the dinner was the keynote struck in the speeches, introduced by Mr. A. C. Manbert, and enlarged upon by those who followed him, namely, the testimony given by each speaker that the lumber trade is one of the finest occupations in which a man can be engaged. In exceptionally eloquent phrases Mr. Manbert brought out this point, and his remarks struck deeply into the minds of his audience. In a whimsical manner he told of the trials of the lumber manufacturer from the time he obtains possession of some standing timber until he manages to sell his manufactured lumber to a wholesaler. "But if all this that I have described were true," he continued, "I know of no other business I could love so well; no other business that is more a man's business." And then he told his reasons for this feeling; reasons which appealed to everyone present and made them feel fonder and prouder of their occupations as lumber manufacturers and dealers, occupations which brought out all that there was of good in a man, and made him more tolerant, more far-seeing and more generous to his fellows than probably any other occupation could do. These two ideas, the benefits of good fellowship and association, and the dignity of the lumberman's occupation were indeed the chief thoughts of all the speeches, and they made the event one which for warmth and good fellowship, and for the force of the impressions made upon those present will undoubtedly stand out for many years in the minds of the Toronto trade.

There were other interesting features; for instance, the address of the representative of the Ontario Government, Prof. E. J. Zavitz, who was given a sympathetic hearing as he told of the work of the Department of Lands and Forests; of its high ideals and its great problems in the preservation of the timber resources of Ontario and the conversion of those resources into merchantable products in the most economical and scientific manner. Prof. Zavitz could not fail to feel at the conclusion of his address that in any efforts his department might make for the better management and protection of Ontario's timber resources he had every lumberman in the province behind him.

From a purely trade point of view there was one other feature which, though perhaps it did not attract so much attention as it deserved, was none the less significant. Mr. W. W. Pearse, city architect of Toronto, reminded the lumbermen that before he came to Toronto he had spent a number of years in the United States, where practically the only kind of timber used for heavy construction purposes was southern yellow pine. Since coming to Toronto he had been impressed greatly with the merits of British Columbia Douglas fir. The superior qualities of this timber had been presented to him by Mr. L. B. Beale, B. C. Lumber Commissioner for Eastern Canada, who had completely converted him from a southern pine advocate into a Douglas fir enthusiast.

The idea of holding a dinner for the lumber trade in Toronto originated with Mr. A. K. Johnson, one of the youngest members of the Lumbermen's Section of the Board of Trade. When broached, the idea was immediately taken up by the rest of the members and a committee was appointed, composed entirely of young men, the aim being to let the young ones show what they could do. The result was that they set such an example as will make it a difficult matter for those who have to follow them to equal their record.

British Columbia Markets All Improving

The leumber trade situation in British Columbia, like that in other parts of Canada to-day, is characterized chiefly by great shortage of stocks. Various estimates of the shortage have been made public of late, and the opinion expressed in an interview by Mr. Hugh A. Rose, published elsewhere in this issue, seems to be pretty close to the average idea, namely, that between 90,000,000 and 100,000,000 feet is the amount by which stocks on hand to-day in British Columbia fall short of those of a year ago. In considering the effect of such a short-

age upon the trade it is necessary also to bear in mind the fact that the cutting capacity of British Columbia mills is not being operated to-day at anything like its maximum. In fact, the coast mills are said to be operating only to the extent of about 60 per cent. of their capacity. The two chief elements in connection with supply, therefore, are conducive of firm or advancing prices, and the actual quotations at which transactions are being made show that such an effect has already been produced. During the past six weeks there have been advances of several dollars per thousand feet, and manufacturers assert that further advances are certain.

It is not difficult to explain this situation. Without going back to enquire into the early causes of the shortage, it is sufficient to draw attention to the fact that ever since the beginning of the war labor has been growing more expensive and less efficient, while, at the same time, the cost of equipment and supplies for logging operations has been advancing rapidly, so that to-day, with a crew of men in the woods equal in number to a crew of a year or two ago, the logging operator has to pay about 50 per cent. more for wages and supplies and to be content with a considerably smaller output of logs. The raw material for the lumber manufacturer—that is to say, his logs—is therefore costing far more than ever before, and he in his turn is handicapped by shortage of mill operators and inefficiency of those whom he can secure. The manufacturer's operating costs are therefore increased in every regard.

These difficulties have been growing steadily more acute during the past two years, tending to reduce the output of the mills and to make it necessary for the manufacturer to obtain higher prices or to close down his plant. The higher prices have therefore been a reasonable result of the market conditions, and the closing down of about 40 per cent. of the cutting capacity has been rendered necessary in order that such stock as is manufactured may return to the mill-owner a profit sufficient to encourage him to remain in business.

This is all a fairly healthy situation when the demand is quiet, but to-day there is a noticeable change coming over the trade, and the market looks so promising that a condition of short stocks and reduced output, while interesting enough to the manufacturer, carries something of a warning for those who use British Columbia lumber products. We are informed that stocks at mill points in British Columbia are both short and considerably broken, so that it is a difficult matter to fill any fair-sized oders promptly. Moreover, the unsatisfactory nature of the car supply is such that, even when an order has been completed, it is a most uncertain matter how soon delivery can be made. That the demand for British Columbia lumber products is likely to continue strong and to increase during 1917 seems to be pretty well assured. The demand from the prairies has been increasing steadily all through the past year. In spite of the fact that part of the prairie crops suffered on account of rust, there was a better than the average crop, taking the three prairie provinces together, and the prices secured were so good as to compensate for the reduction in crop as compared with 1915. Thus the farmer on the prairies has had two good crop years and is in a better position than ever before to spend money upon lumber, which, in fact, he is doing.

In Eastern Canada the demand for British Columbia lumber is also increasing, and the trade is learning that it can use far larger quantities of British Columbia products than it has been using in the past. Information that we have just received is to the effect that three important consumers in Eastern Canada who use great quantities of lumber annually have decided to use British Columbia stock during 1917—in fact, have already placed their orders for it. Export markets for all British Columbia lumber and timber have shown encouraging activity during the past few weeks. Elsewhere in this issue will be found reports of orders for very large quantities, which indicate a splendid export demand for 1917. We have every reason, therefore, to predict, so far as it is possible to base a prediction on existing facts, that good prices and demand for everything available will be the chief features of the British Columbia trade during 1917.

U. S. Manufacturers Keen for Export Trade Opportunity

That the lumber producers and shippers of the United States are keenly alive to the importance of being ready for the trade that will develop abroad when European battle-worn countries are being reconstructed, is shown by the importance they are attaching to the safe passage of the Webb Bill by Congress, and by the remarkable statements made recently by the Federal Trade Commission in its report after investigation of the lumber industry and trade.

"If Americans are to enter the markets of the world on more nearly equal terms with their organized competitors and their organized customers, and if small American producers and manufacturers are to engage in export trade on profitable terms, they must be free to unite their efforts." This paragraph referring to the need of export sales agencies of lumber manufacturers, as legalized by the pending Webb Bill, is only one of many significant expressions on the lumber industry, in the report of the Federal Trade Commission. Some other pertinent quotations follow:—

"In various markets American manufacturers and producers must deal with highly effective combinations of foreign buyers. Exporters of lumber find such combinations in Australia and on the continent of Europe.

"As regards the danger to the independent American exporter, the specific extension to export trade of the present law prohibiting unfair methods of competition, and the requirement of full reports to the Federal Trade Commission from all co-operative export organizations will furnish an adequate safeguard.

"The control of the export trade in American lumber has been, and still is, largely in the hands of foreign brokers. The part played by the manufacturers in the transaction has usually ended with the placing of the lumber on board ship. They have not been concerned with the development of a foreign market for their products. Neither have the brokers been interested, except insofar as they were able to sell American lumber abroad cheaper than lumber obtainable from other sources. The result has been that because of a lack of effective organization of the American lumber manufacturers in exercising a greater degree of control over the distribution of their products which are exported, the foreign distributor and consumer have obtained a large share of the benefits which the possession of so great a national resource should have secured to an American industry.

"European lumber manufacturers can secure, to a considerable degree, stability of prices for their products. The sawmill men of Norway, Sweden and Russia establish once a year a base price for their lumber. Preparations at that time have already been made for the output for the year. The newly cut stock is allowed to dry for the following year. The marketable stocks on hand, even to the quantity of each grade, are known and their size determines the amount of business to be done. The base price fixed upon is not deviated from for the entire year. The purchaser knowing that, is absolutely safe in placing his orders in January for June delivery, inasmuch as his competitors handling that product have to pay the same price. He can expect no such stability in prices of the American lumber.

"The benefits to the nation of the work of the export lumber-selling combinations, would come through increasing the stability of an industry which employs a large working population, through the sale abroad of high grades of lumber at relatively much higher prices than the conditions of the domestic market warrant; through any increase in export lumber prices due to the effective action of unified bargaining power in dealing with the combined purchasers of foreign markets; and through the profitable sale of common and low-grade material, which otherwise would be left to waste in the forests because of insufficient demand for it in domestic consumption. Through all these ways the country not only receives from the foreign consumer a more adequate return for a great American natural resource, but a higher degree of utilization of that natural resource is also made possible."

Much of what is said in the above extracts is instructive to Can-

adian exporters. It is interesting at the same time to note that the United States manufacturers seem to suffer because of the concentration of the profitable end of the business in the hands of foreign shipping and brokerage firms, a handicap from which Canadian exporters have an idea that they suffer more even than those of the United States.

U. S. Investments in Canadian Plants

The extent to which United States capital has been invested in Canada since the outbreak of the war is far greater than many Canadians are likely to imagine. The Monetary Times in a recent article upon this subject says:—

About fifty branch establishments of United States firms have been established in Canada since the outbreak of war. With an average investment conservatively estimated at $300,000, these fifty plants represent a new investment of $15,000,000 in this country. Prior to the war there were about 450 such companies in Canada. With a similar investment, the total is $135,000,000, and with the companies which have come here since the war, the grand total investment is $150,000,000.

Among the United States companies which have established branches since the war commenced, are makers of the following: Railway accessories, overalls, chemicals, silverware and flatware, automobiles, horse shoes, steel goods, patent medicines, spices, soaps, perfumes, glue, beet sugar, pumps, greenhouses, railway signals, fuses, boxes, spreaders, silk gloves, stockings, tires, steel, steel products, canned goods, automobile varnishes, belting, store counters, explosives, lumber, pulp and paper, sewing machines, aloxite and other abrasives and electric furnace products, grain and elevator machinery, silk and chamoisette gloves, refined nickel, and cottonseed oil products.

At least twelve United States manufacturers of agricultural and farm implements have branches in the Dominion and about as many makers of automobiles. In the latter case the parts are usually imported separately and assembled in this country. Several United States manufacturers of chemicals, drugs, patent foods and cereals have factories or distributing houses on the Canadian side of the international line. A large number of firms manufacturing and supplying various machinery, fittings and plant are also doing business in Canada in a similar way.

This United States commercial invasion applies to a lengthy list of articles. Among the companies established here before the war are manufacturers of asbestos, barrels, blind rollers, buttons, carpet sweepers, corsets, condensed milk, bags, corks, carriages, couches, brass goods, billiard tables, cords, cash registers, disinfectant, fly paper, files, fire extinguishers, fountain pens, gramaphones, hardware, pickles, presses, pulleys, razors, rubbers, sealers, shoes, scales, typewriters, watch cases, tobacco, etc.

Since informal discussion in various quarters has been heard as to the possibility of favorable tariffs among the Allies and the Dominions after the war, there has been an impetus given to the movement of United States branch plants to Canada, and a number of inquiries continue to be made by United States firms with a view to their establishment in the Dominion. In the event of favorable tariff treatment as between the Allies and the Dominions, these United States manufacturers in Canada expect to be regarded as Canadian manufacturers and thus entitled to the benefits of any such favorable tariff legislation. These firms are now in a position to cater at close range to the demands of the Canadian markets and hope also to be in a position to handle some or all of their export trade from their Canadian factories, under present or revised tariffs of various countries.

Editorial Short Lengths for Busy Readers

The Port Commission of Seattle, Wash., in answer to criticism on the use of timber and pile construction in the Seattle wharves, has replied that wharves and freight sheds such as have been built by the port will have a life of probably from twenty to twenty-five years, which is also about the economically useful life of such a structure.

The Commission adds that conditions of water transportation are constantly changing, and this will render terminal structures obsolete after a certain number of years, this period being on the average about twenty-five years. It has not been demonstrated that concrete is permanent in salt water. If it does not prove to be permanent, then the added cost is not in any way justified, and if it does prove permanent then the physical life of a wharf would exceed its useful life, which is not economical. Another argument in favor of the cheaper creosoted pile and timber construction which is particularly true of Seattle, says the Commission, is that a given amount of money can be made to produce more terminal facilities to invite new business than could be provided if the more expensive type of construction had been adopted.

Important discussions of new methods of preserving wood from decay, of improved methods of utilization through proper treatment, and similar subjects will be discussed for three days in the annual convention in New York, January 23, 24 and 25, of the American Wood-Preservers' Association, at the Hotel Astor. The convention will be the thirteenth convention of this association and one of the most important, for some unusually important experiments have been made during the year just closed. Tests of ties and wood block paving, and methods of treating to get the longest life from wood thus used will be an especially important part of the programme. The fact that several important engineering associations have recently prepared a tentative universal form of specification for the treatment of wooden blocks for paving purposes, will make the action of the association especially important as these specifications are technically in the professional field of organization. Other associations are already adopting the new specifications as the standard for the entire country.

With forestry experts from Canada taking an important part in the programme, an international forestry conference will be held at Washington, D.C., on January 18 and 19, for the purpose of discussing methods for fighting the spread of the white pine blister disease which threatens the destruction of pines on this continent valued at $365,000,000. Clyde Leavitt, of the Canadian Forestry Association, will discuss ways to handle this scourge. R. H. Campbell, Director of Forestry at Ottawa, states that the importance of action to deal with the white pine blister rust makes this meeting one that will be of the greatest importance. Canada will be represented so that joint action may be taken by the two countries and it is hoped it may be possible to arrest the development of the disease.

The transfer of the Robert Dollar interests from San Francisco to Vancouver is already effecting interesting changes in shipping conditions on the coast. The steamer "Grace Dollar" recently arrived at Portland, Ore., to take on 500,000 feet of lumber for Vancouver, where it will be transferred to a trans-Pacific steamer for delivery in China. The "Grace Dollar" was en route from San Francisco for British Columbia when intercepted off the Columbia and ordered to Portland for the cargo, a contract for which recently was closed. The Dollar interests have established themselves at Vancouver, and it is understood that the ultimate plan is to ship direct from there, land having been taken for the erection of a large sawmill and docks. The company has disposed of most of the tonnage formerly operated under the Dollar flag, and the "Grace Dollar" is the only carrier under the American flag. By operating it on the coast, lumber cargoes from coast cities can be transported to Vancouver for shipment to the Orient, while freight brought from the Far East can in turn be shipped from British Columbia to destinations on the coast.

Details of New Demurrage Order

Forty-eight Hours Free Time Only—Railways Expected to Ask for Further Important Concessions

Further details than those published in the Canada Lumberman of January 1st, regarding the new demurrage charges ordered by the Dominion Board of Railway Commissioners, are now available. In addition to the new schedule of demurrage charges for the period from January 1st to April 30th, 1917, the Board has ordered as follows:—

After notice of arrival of a car at its destination, or in the outside break-up or sorting yard if such be used for the purpose, all consignees shall be allowed twenty-four hours within which to pay the tolls or charges (if any), to give order for special placing or delivery if such orders be necessary, and for Customs entry of freight in bond. If more than twenty-four hours be used for these purposes, the excess time shall be deducted from the succeeding unloading period, except as provided in Rule 15.

Forty-eight hours free time shall be allowed for loading or unloading all commodities, computed from seven a.m. of the day following the day on which actual or constructive (see Rule 13) placement has been effected: Provided that any portion of such placement day may be utilized by the shippers or consignee, in addition to the said forty-eight hours, without charge.

Five days free time shall be allowed at Montreal and tide-water ports for unloading lumber and hay for export, the same as at present.

If the destination is not a port of entry, forty-eight hours shall be allowed for clearance of Customs at the outside port of entry.

Rule 11 is suspended. This rule says that where a Railway Company holds previous or standing orders from consignee for placing on designated tracks or private siding the consignee shall not be entitled to the extra twenty-four hours allowed for paying freight charges and giving placing or delivering orders.

The Canadian Manufacturers' Association in a circular upon this subject also draw attention to the fact that an immediate revision of the Car Service Rules is to be made, and ask members to observe closely the working of the temporary rules, and advise the Transportation Department of the Association in regard thereto, and particularly as to the following:

1. Delays in supplying empty cars for loading.
2. Bunching of cars at destination, giving particulars of any cases where carriers have requested payment of demurrage charges contrary to the rules.
3. Delays in transit.
4. Delays in terminals prior to placing on private sidings for loading or unloading.
5. Delays in removing empty or loaded cars from private sidings after notice has been given to railways to remove same.

It is fully expected that the railways will endeavor to secure permanently the reduction in the free time allowed for loading and unloading lumber and unloading coal. They will also endeavor to secure the adoption of the rule in effect in the United States—namely, that the free time on all cars placed before seven a.m. shall commence at seven a.m.

Any objections to these proposals should be sent in as early as possible.

New Brunswick Crown Land Sales

A sale of New Brunswick Crown lands was recently held at the Department of Lands and Mines and some spirited bidding resulted when five lots were offered for sale. Each lot brought more than the upset price. A. R. Slipp, of Fredericton, N.B., purchased a timber berth of two square miles on the east of the Penniac River, York County, for $40 per mile. A lot of two square miles, situated east of Magaguadavic River, was sold to Mr. Robert H. Little for $150 per mile, and two lots, one of three square miles, and situated east of Queens—Westmoreland County line, and another of four and a half square miles, situated west of Queens-Westmorland County line, were sold to Mr. W. G. Fenwick, who at present holds the lease. The first of these lots was bid in at $180 per square mile and the second at $295 per square mile, after some strong bidding. The last lot sold produced some of the most spirited bidding of the sale and was bid in by Sayre & Holly for $301 per square mile. This lot is situated at the head of Borth Forks, Canaan River, and was formerly leased to Mr. W. G. Fenwick.

Annual Meeting of Toronto Lumbermen

The annual meeting of the lumbermen's Section of the Toronto Board of Trade was held on Friday, January 5th, in the Board of Trade Committee Room. The chief business of the meeting was the election of officers for the current year, which resulted as follows:—chairman, J. B. Reid, vice-chairman, A. C. Manbert. Committee, A. E. Clark, A. K. Johnson, H. J. Terry, Hugh A. Rose, and W. F. Oliver. Secretary-treasurer, Horace Boultbee.

Large War Orders for B. C. Firms

One of the latest reports regarding the purchase of lumber and timber by the Allied Governments is to the effect that orders for British Columbia lumber aggregating over 16,000,000 feet have been received recently, exclusive of an open order for all the spruce available that is suitable for aeroplane manufacture. The report states that these orders have been given by the British Government to tide-water mills in British Columbia within the past three weeks. It is also reported that an order for 500,000 shell boxes has been placed, requiring over 6,000,000 feet of lumber, the successful firms being the Cameron Lumber Company, the Lemon-Gonnason Company of Victoria, the B. C. Timber and Trading Company, Vancouver, the B. C. Mfg. Company and the Brunette Saw Mills Company, of New Westminster, B. C. The latter contract calls for weekly shipments of 40,000 boxes. It is also reported on the same authority that coast mills will divide an order for two cargoes amounting approximately to 7,000,000 feet of ties and large dimension timber, one cargo to be shipped in March and the other in May, the vessels to be furnished by the Admiralty. A third order for 3,500,000 feet of lumber is to be shipped by rail this winter to St. John, N.B. The report states that the firm securing the open order for spruce is the Cameron Lumber Company.

Dominion Government Prohibits Pulpwood Export

An order-in-council has been passed by the Dominion Government making certain amendments to the regulations governing the cutting of timber and pulpwood on Dominion lands. The order-in-council provides that all such wood cut on Dominion lands under permit must be manufactured in Canada. The Province of Quebec passed such a law several years ago. The Ottawa administration is evidently copying the Quebec administration's method of developing the pulpwood industry. A few years ago Sir Lomer Gouin was much impressed by the large exportation of raw pulpwood from Quebec to the United States. The timber was taken away and manufactured across the international border, giving work to American workingmen, while many men in Quebec were out of work. The Quebec Government consequently introduced a law prohibiting the exportation of raw pulpwood. The effect was what had been anticipated. At various places throughout the province pulp plants have sprung up, and now the raw pulp is manufactured into pulp in Quebec, and is only shipped out in the finished state. One of the best examples of the benefit of the law is to be found at East Angus, Quebec. Before the passing of the law there existed a pulp plant there, but it only operated on a small scale. With the passing of the law the plant received a new lease of life, and to-day the establishment is one of the most flourishing in the province, belonging to the Brompton Pulp and Paper Company, giving employment to practically the whole of the population of East Angus.

Terry & Gordon Hold First Annual Staff Gathering

On Thursday, December 28th, the firm of Terry and Gordon, Confederation Life Building, Toronto, held the first annual gathering of their staff, at the Queens Hotel, Toronto. The event consisted of a luncheon and an informal afternoon meeting for the purpose of enabling the members of the staff to become better acquainted with one another. The luncheon was a very pleasant affair and the social gathering, in addition to bringing the members of the staff into close touch with one another, enabled them to hold a valuable discussion in regard to trade conditions, and prospects. It is intended to have a similar meeting annually. Those present were Messrs. H. J. Terry and A. E. Gordon, Toronto; F. W. Gordon, Vancouver, western manager; Leon Gagne, Jr., Montreal manager; L. M. Dougherty, Toronto representative; I. J. Linton, eastern Ontario representative; R. A. Watt, western Ontario representative; Clarke Allen, Toronto, bookkeeper; and A. E. Cates, Toronto, office manager.

Urges Trade Relations with France

Senator Beaubien, of Montreal, who was one of the Canadian party to visit France recently in connection with the after-the-war trade by Canada with that country, has addressed a letter to Sir George E. Foster, Minister of Trade and Commerce, expressing the opinion that the time is ripe for putting forth special efforts to increase the trade between Canada and France. Among other facts given attention in the Senator's letter is that although Canada exports $40,000,000 worth of lumber every year, it is practically unknown in France. He notes that in 1913 France imported 223,000,000 francs' wortrh of ordinary lumber. "War has greatly enhanced Canada's opportunities in this respect," said Senator Beaubien. "In the Department of the Isere alone more than 200,000 tons of paper are produced yearly, every pound of which, prior to the war, was made out of German or Austrian pulp." He suggests an arrangement whereby a trainload of Canadian products may be sent across to tour the big French cities, and a trainload of French products sent here to visit the principal Canadian cities.

Short Stocks in British Columbia

Nearly 100,000,000 Feet Less than a Year Ago—Only 60 per cent. of Cutting Capacity Now Operating

Mr. Hugh A. Rose, Toronto representative for the firm of Mason, Gordon and Company, Montreal, returned recently from a visit of a month's duration to the Pacific Coast. Discussing, with the Canada Lumberman, the trade situation in connection with British Columbia products Mr. Rose said:—"In the first place there is an absolute shortage of lumber on the Pacific Coast and in the mountains. Mountain stocks, which only affect the eastern Canada market indirectly as their lumber all goes to the prairies, show a shortage of between 90,000,000 and 100,000,000 feet as compared with stocks on hand a year ago, and trade on the prairies is excellent. In addition to this shortage they are having the greatest difficulty in securing men for bush operations in the mountain districts. In fact, on account of the shortage of labor, conditions in the camps are very unsatisfactory, employees being frequently on the move, from one camp to another where better conditions or higher wages are offered. There are not enough men to go around and unquestionably there must be a short output of logs as a result.

"On the coast, 40 per cent. of the cutting capacity is closed down and will not be operating during 1917. Logs are very scarce at all coast points and it is almost impossible to obtain labor. One manufacturer who cuts about 90,000,000 feet a year told me that with the same number of men in the bush, at about 50 per cent. increased cost for labor and supplies, they are going to be between 9,000,000 and 10,000,000 feet short in their log cut for the year, chiefly on account of the fact that 75 per cent. of the crews are green hands.

"Stocks on hand in the coast district are exceptionally low. Many lumber yards are down to pile bottoms that have never seen pile bottoms since the piles were first put in. Shed stocks are exceptionally low and very few orders can be filled without waiting for the manufacturer on some items. In addition, the car supply has been very erratic and the numerous embargoes placed on equipment by the railway companies are seriously inconveniencing the shipment of orders.

"Prices have already advanced several dollars per thousand feet on all grades above common as compared with those of six weeks ago and further advances are contemplated. In addition to the features already mentioned, there is still the uncertainty of the weather to be considered. It will be remembered that last year the production of logs and lumber was enormously curtailed by severe snow storms during the early weeks of the year.

"In former years the British Columbia coast mills have used the eastern market as a means of disposing of surplus stocks. During the past year, however, they have looked upon the eastern market more in the light of a regular and permanent source of outlet for their product. Today there are no surplus stocks at the coast and the mills naturally feel that they are entitled to net the same prices for their product shipped into eastern Canada as they are receiving for that which is sold on the prairies.

"In regard to the timber situation, the shipbuilding industry is developing to such an extent that it is taking the best of the logs and in addition to this, off-shore business has increased to such an extent that some of the mills at least are finding themselves booked up with more business than they can comfortably handle under present conditions, a situation to which they would have no objection if they could secure enough labor.

"The express object of my visit to the coast was to become acquainted with the mills with whom our firm does business in British Columbia and to satisfy myself that the class of stocks they turn out is fully up to the requirements of the eastern trade. I have come back very enthusiastic about the ability of these mills to take care of the trade handled by Mason, Gordon and Company in eastern Canada and am more than ever convinced that with our excellent western connections we can fill any kind of an order with which we are entrusted."

War Office Using More Canadian Wood

A recent cable from London, Eng., says:—"Canadian lumber exporters will be glad to learn the decision of the War Office to make larger use of Canadian woods in the future manufacture of articles required for war purposes. This decision is the outcome of representations made by Sir George Perley, who put the lumbermen's case strongly before the authorities, more especially as regards red and white pine. Specimens, prices and samples of pine were submitted to the War Office with the result that an inspector of equipment and supplies has furnished for the merchants' guidance lists of sixty-eight articles in which the use of Canadian woods will be provided for in the specifications governing their manufacture.

Blair & Rolland, Montreal, have sent out a calendar entitled "The Sunset." It is of large size, with clear date figures—a very artistic calendar.

J. G. Cane Running for Ontario Legislature

J. G. Cane, Toronto.

Mr. James G. Cane, of James G. Cane & Co., wholesale lumber merchants, Toronto, has been nominated to represent the Liberal interests in Northwest Toronto, in the forthcoming by-election, when Hon. W. D. McPherson, the new Provincial Secretary for Ontario, will seek re-election.

Mr. Cane is widely known to the lumbermen of Ontario as a successful business man. He was president of the Commercial Travellers' Association of Canada in 1915. Mr. Cane has been engaged in the lumber business throughout his whole business life. He was born in 1864 near Weston, Ont., where his father operated a sawmill. He was educated at the public and high schools at Weston, and started at an early age to work for his father. After obtaining a good grounding in the manufacturing business, he went into the planing mill business in Toronto. Next he went on the road as travelling salesman for the Hargreaves Lumber Company, of Toronto. Subsequently he occupied a similar position with the firm of McCool, Boyle & Wilson, of Toronto. Then he went with the Toronto Wood and Shingle Company, after which he took up business on his own account. In 1894 he started under the name of James G. Cane & Company.

Montreal Exports During 1916

Montreal, January 2nd; (Special to the Canada Lumberman):—The full statistics of the exports of lumber from the port of Montreal to the United Kingdom, European Continent, and South Africa, are now available. In our issue of December 15 we published the figures of the principal shippers, to which has now to be added the railways, steamship lines, and small shippers, totalling 10,123,970 feet, or a decrease of 3,667,395 feet. The addition of the latest figures converts an increase of 1,850,387 feet by the principal shippers into a decrease of 1,817,008 feet for the combined exports:

	1916 Feet B.M.	1915 Feet B.M.
Watson & Todd, Limited	25,131,362	23,445,439
W. & J. Sharples, Regd.	14,039,035	9,847,219
E. M. Nicholson	13,035,542	15,239,280
Cox, Long & Company	9,814,594	5,130,576
R. Cox & Company	8,125,121	8,852,632
J. Burstall & Company	7,667,826	7,762,353
Bennett Lumber Company	6,908,157	11,000,000
E. H. Lemay	4,998,003	7,000,000
Dobell, Beckett & Company	4,854,406	4,446,160
Railways, steamship lines and small shippers	10,123,970	13,791,365
Totals	104,698,016	106,515,024

Decrease, 1916, 1,817,008.

Extensive Mahogany Sales for Aeroplane Blades

A despatch from Boston, Mass., under recent date, contains a statement to the effect that the British and French Governments are buying materials and closing contracts for the construction of 40,000 war-planes during the coming year and that a firm in Louisville, Ky., has secured a contract for the sale of 1,500,000 feet of mahogany to be used for the construction of propeller blades for these air craft. It is stated that this sale was made by C. C. Mengel and Bro. Company, Louisville, Ky. The lumber will be shipped in planks 9 feet long, 8 inches wide and 1 inch thick and will be made into veneer in Great Britain and France. These pieces of veneer are pasted together for the construction of the aeroplane blade material.

Mr. Geo. Bury, vice-president of the Canadian Pacific Railway, in a report to the Canadian Forestry Journal, states that the annual requirements of the Canadian Pacific Railway amount to the following, 5,000,000 track ties, 5,000 sets switch sets, 200,000 fence posts, 50,000 telegraph poles, 20,000 piles, 5,000,000 shims, 25,000,000 tie plugs, 60,000,000 feet lumber.

Mr. E. W. Tobin, M.P., the well-known Eastern Townships lumberman, has been re-elected mayor of Bromptonville.

Annual Dinner of Toronto Lumbermen

Splendid Gathering Arranged by Lumber Section of Board of Trade—One Hundred and Fifty Present—Interesting Speeches and Fine Entertainment

The first annual dinner of the Lumbermen's Section of the Toronto Board of Trade was held on Thursday, December 27th, in the dining hall of the Board of Trade restaurant and was an exceptionally successful and interesting event. There were present no less than 150 representatives of the lumber industry and trade, most of them being connected with Toronto firms, but including a generous representation of firms from other points. The event was in the nature of a dinner, together with a number of excellent entertainment features and a short list of after dinner speeches.

Mr. G. W. Boake, chairman of the Lumbermen's Section presided and acted as toast master. Others at the head table included Mr. Arthur Hewitt, president of the Toronto Board of Trade; Prof. E. J. Zavitz, chief of the Forest Protection Branch of the Department of Lands and Forests for Ontario; Mr. A. C. Manbert, Toronto; Mr. L. B. Beale, B. C. Lumber Commissioner for Ontario; Mr. W. W. Pearse, city architect for Toronto; Mr. Jos. Oliver; Mr. John B. Reid; Mr. J. L. Campbell, and Mr. A. E. Clark.

After the toast to the King had been loyally honored, the toast master called upon Mr. J. P. Johnson to propose the toast to the manufacturers. In a few words Mr. Johnson called upon Mr. A. C. Manbert for a response to this toast.

The Manufacturer's Happy Lot

Mr. Manbert delivered a delightful reply, in which he dwelt chiefly upon the strong appeal made by the lumber manufacturing industry to the highest instincts and ideals of the business man. It was a peculiar fact, Mr. Manbert said, that the lumber manufacturer was a man of remarkable guillessness, always hopeful in the face of difficulties and always making the best of any situation in which he found himself. The manufacturer would always tell you that the best of the logs were at the end of the drive, and the finest trees upon the limit had never been touched. When the good province of Ontario was running a little short of cash and decided to put a timber limit upon the market the lumber manufacturer was prompt to come to its aid. Probably he paid a good deal more for his timber than he should, but he had a sawmill to keep up. Anyway, it was about time for the market to rise, and if he paid a little more than he should for his limits he hopefully counted upon everything coming out all right, even if providence had to intervene in his behalf. Then the manufacturer went to the bank. There he signed long and strange documents presented to him by the manager, which included reference to everything he ever owned, hoped to own, or by any stretch of imagination might be expected to own, either now or in future. All this business having been comfortably disposed of the manufacturer proceeded to operate. All winter long he fought with jumping lumber jacks. In the spring he started his drive and if a storage dam or two did not go out, or if his logs were not in one way or another stranded long before they reached the mill, he was well pleased and satisfied that the Kaiser had made a mistake because "providence was really mit him," not with the Kaiser. Then he got his logs to the mill and started to manufacture.

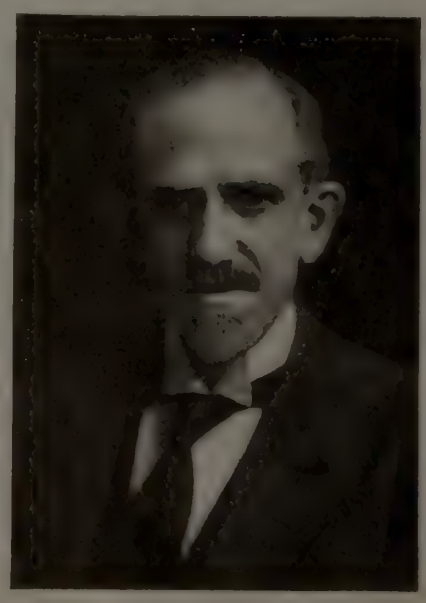
In the meantime he had not entirely forgotten about his dealings with the bank, and so, along about mid-summer, when his yard was getting pretty full of lumber he was quite interested to see a prosperous looking gentleman from Toronto pay him a visit and look over his stock. This visitor had different ideas from his, as to prices, but he also had a cheque book showing a nice, fat, juicy balance, and happened to leave it lying noticeably upon the desk when they stepped out together to look over the piles. When the visit of the Toronto gentleman had been concluded, the manufacturer signed a contract for the sale of his product and soon he started shipping the lumber. Then, in the early fall, the lumber market would begin to go up. It was a singular thing, the way the lumber market acted. In the spring and early summer prices and demand constituted a perfect orgy of somnolence, but in the fall they became as roaring lions seeking whom they might devour.

"But if all this I have said were true," Mr. Manbert continued, "I know of no other business that I could love so well." Some time ago he had occasion to call upon Mr. Robert Cox, the well-known English exporter. After reminiscing at some length upon the vicissitudes of the trade, Mr. Cox concluded with the compensating statement, "but, after all, it is a man's business." "I have often made mental acknowledgement to Mr. Cox for his clearly phrased concept," said Mr. Manbert. "There are other businesses that are vastly more profitable. There are others that are vastly less arduous. But what business possesses more true dignity? What is more a man's business? And if it is at times a hard mistress, it is a fascinating one. Oh, the lure of it! To be in the woods in the fall and watch the logs come crashing down, or in the winter days to see the skidways piled high with logs and to hear the 'yo-heave-ho' of the teamster echoing through the woods, or again in the spring to watch the logs come tumbling down in their mad haste to reach the open river; or in the summer to stand in the mill and watch the same logs rushing forward and back on the carriage to be cut into lumber and then carried on through the other processes of the operation.

"There are no two logging operations exactly alike. There are no two trees alike; no two boards exactly alike. What business is more impatient of the ties of tradition? What business embodies more promptness of decision, more arbitrary judgment? What business indeed is more a man's business? Someone has said that he who causes two blades of grass to grow where one has grown before, is a benefactor to his race. I like to think of the lumber manufacturing business as illustrating the dignity of service and I hold that whoever enters into the production and distribution of a prime necessity to man's comfort is engaged in a worthy work."

Illustrating this line of thought Mr. Manbert took up a consideration of the present trade situation. Referring to the high cost of many of the necessities of life, including the high cost of lumber, he said that, personally, he believed high costs were here to stay, for a time at least, and that by the law of adjustment and compensation, higher prices were inevitable. Present prices might seem high, but in a good many instances, he was inclined to think, they would go still higher. Adam Smith, in enquiring into the laws of wages and compensation, had drawn attention to the fact that some businesses were operated upon a fairly steady and regular basis of reward of effort, as for

G. W. Boake, Chairman.



A. C. Manbert.

J. L. Campbell

J. B. Reed

instance the business of the apothecary, but others were conducted under great risks, with consequent varying returns, as notably smuggling and the lumber trade. "Now I am not particularly flattered by the assumption in that illustration," Mr. Manbert said, "but its logic is unmistakable. For the past ten years the lumber manufacturer has been conducting his business on a very narrow margin of profit, and in some instances at a considerable loss. Today, we find stocks too scant to meet an increased demand and the manufacturer is inclined to stay out of the business. When a condition like this is reached the forces of reaction always set in and the pendulum swings the other way. Just how far it will swing, I do not know, but that it will describe a considerable arc I am quite convinced. I do not mean this as to the present year, but I mean it as to succeeding years."

Referring again to the dignity of service, which impressed him so strongly in connection with the lumber industry, Mr. Manbert said that years ago when he was engaged in selling lumber on the road he had found that the lumbermen in the towns he visited were men of good business standing who held a high conception of their work, and that he himself was not considered in the ordinary sense of the word "a drummer," but a man of business. The amazing thing to him was, that in the vast volume of business done upon this basis of representation, there was so little of misunderstanding and dissatisfaction. It was particularly gratifying to join in a gathering of lumbermen which frankly accepted this situation and sought to promote the development of this condition. He held no Utopian views about eliminating the stimulus of necessity. He was indeed, and individualist, and rejoiced in the fact that he lived in a country and under a government that put a premium upon the iniative of individualism, because "that spells democracy." But he also held that the ideal of individualism was non-invasion of the rights of others, not in an inactive sense, but rather in a positive sense; an individualism that sought to find out what were the rights of others, in order that they might be respected. Concretely, this meant mutual respect, mutual interest, a spirit of give and take. It meant that the inside of their piles of lumber should be the same as the outside; that the bottom of the car should be the same as the top; that the terms of payment should be as much a part of the contract as the price or the grade. Any move, any effort, that sought to promote these conditions had his support. More, it evoked his enthusiasm, for to him it signified that in this phase of life at any rate, they were looking outward not inward; forward, not backward; and seeking to align themselves with that spirit of fair play which was peculiarly an increasing manifestation of the Anglo-Saxon race.

Protection of the Manufacturer's Raw Material

Prof. E. J. Zavitz, chief of the Forest Protection Branch of the Department of Lands and Forests for Ontario, followed Mr. Manbert, and spoke interestingly of the work being done by his department. Ontario, he said, was particularly interested in forestry because it has an area some 50 to 150 miles in width and 1,000 miles in length which will never be anything but forest country. The Forest Branch of the Department of Lands and Forests had two problems before it. First was the problem of reforestation, both artificial and natural. In Southern Ontario the Department had a forest station where it was actually planting small trees on waste types of soil. The idea there was to plant forest trees for a forest crop. They did not think for a moment, however, that they could secure the future timber supply by this method. The work was being done very largely from an experimental standpoint. Natural reforestation was applicable to the north country. The Forest Branch did not advocate the expenditure of money in planting forest trees in the north country. There was not the smallest doubt that many of our areas in the north would become reforested naturally. It was important in the consideration of this matter to bear in mind that every stick of timber that grows was becoming of value. The question of reforestation of limits was one in connection with which we were very largely at sea today. Our information upon this subject was very meagre and we ought to be working along the line of increasing it.

The other problem before the Forest Branch was that of forest protection. Prof. Zavitz spoke of the work of protection against disease, referring to the white pine blister rust, which had been introduced to North America from Southern Europe of late years, and upon which the Department now had several men at work. Unless this disease were checked there was no doubt that it would wipe out our white pine resources.

Another important line of work carried on by the Department was that of fire protection. The Forest Branch had just been given charge of the reorganization of fire protection in the forests. In former years the fire protection service had simply followed the lines of fire patrol by rangers in canoes and along the railroad lines. They now hoped that with their reorganization they would be able to get more overhead supervision of the fire ranging work, and to develop working plans so as to obtain more definite knowledge of what the fire rangers were doing. They also hoped to develop fire location work at lookout stations, to establish extensive telephone lines through the forests and to enforce effective preventive methods such as actual control of the burning of slash and setting out of fires by settlers. Furthermore, they intended to develop their publicity work, so as to give the public, and especially those frequenting the forests, a proper appreciation of their responsibilities in connection with fire prevention.

The Wholesaler a Man of Many Parts

The toast to the wholesalers was proposed by Mr. L. B. Beal, B. C. Lumber Commissioner for Eastern Canada, who called upon Mr. J. L. Campbell, Toronto, to reply. Mr. Campbell contrasted the work of the wholesaler with that of the manufacturer, saying that the profession of the wholesaler was one which called for infinitely more diverse qualifications. The wholesaler must be versed in all the occult sciences of mesmerism, mind reading, psychology and any other ology that would assist him in landing an order. When he called upon the retailer to tell him his story about his culls and to make him believe that they were as good as mill run, he had to greet his customer, pet him, flatter him; do anything at all in fact to get his business. He had to agree with your politics, with your criticism of the war and with anything else you cared to say. In fact he had to make himself an all-round good fellow in the hope that his efforts to get business might fructify into an order for one or two car loads.

The business of the wholesaler was both a science and an art. As a science it involved a study of the kinks peculiar to the trade, and as an art it was concerned with the application of brains to the problem of securing orders. The wholesaler might travel many miles without getting an order, yet he had to appear optimistic and happy wherever he went. If the retailer would do something to smooth away the roughness of the wholesaler's life and to make it more pleasant for him he would do a great deal to lighten his task.

Mr. Campbell referred to the difficulties which arise over misunderstandings or over incorrect shipments; pointing out forcibly, by means of examples, that it was always in the best interests of all concerned that such difficulties should be scrupulously avoided and that when they arise they should be dealt with by both parties in a spirit of give and take.

A Good Word for Douglas Fir

The toast to our guests was proposed by Mr. A. E. Clark, Toronto, and replied to by Mr. Arthur Hewitt, president of the Board of Trade, and Mr. W. W. Pearse, city architect for Toronto. Mr. Hewitt complimented the Lumbermen's Section upon their vigor, and expressed the appreciation of the Board of Trade of its possession of so successful and progressive a section.

Mr. Pearse spoke briefly, referring chiefly to the fact that he had formerly spent a number of years in the United States, where they used practically nothing but long leaf yellow pine for heavy construction and for many other purposes. Since coming to Toronto as city architect he had come into close business contact with Mr. L. B. Beale, B. C. Lumber Commissioner for Eastern Canada, and he felt that he must compliment British Columbia upon having so energetic and well-posted a representative. Mr. Beale had shown him the merits of Douglas fir so conclusively that he had become a convert to the use of this excellent British Columbia timber.

The Retailer the Real Philanthropist

The toast to the retailers was proposed by Mr. Jos. Oliver, Toronto, and replied to by Mr. J. B. Reid, Toronto. Mr. Reid told of the trials of the retail lumber dealer, especially in the early days in Toronto. So difficult had the lot of the retailers in Toronto been in past years that they were lucky if they got out of their business the money they put into it. At last, after many years of this sort of thing, the retailers had got together and created a Credit Bureau, which had now been in operation for a year and a half and was protecting them thoroughly against the loss of the money they had put into the business. He believed that the retail lumberman was the most magnanimous member of the lumber trade, that he did more for humanity and charity than any of the others, and that he was the biggest hearted man one would ever meet. The retailers, of course, had their full share of worries and troubles, but they had backbone. Every retailer was a pioneer. The retailer was, in fact, the worker of the trade, and the Lumbermen's Section of the Toronto Board of Trade owed much of its popularity and success to the energy of the retail lumbermen.

Mr. W. E. Bigwood also spoke briefly, drawing attention to the fact that the Canadian Lumbermen's Association will hold its annual meeting in Toronto early in February, and urging the lumbermen of Toronto to co-operate in order to make the meeting a successful one.

The entertainment features of the evening were furnished by specially provided talent, including vocal soloists, piano numbers and an interesting vaudeville number secured from Shea's Hippodrome. From the moment that the first guest arrived until the end of the evening's entertainment everything proceeded smoothly and according to schedule, so that the guests were unanimous in their expressions of appreciation of the splendid evening's entertainment provided for them. The committee who had charge of the event was composed of Messrs. W. F. Oliver, A. K. Johnson, A. E. Clark, and H. Boultbee.

Douglas Fir Export Trade Problem

Conditions in Foreign Markets and at Home Which Have Deprived B. C. Manufacturers of a Full Share of Off-Shore Business.

In an address delivered recently before the British Columbia Forest Club, Mr. H. R. MacMillan spoke of some of British Columbia's forest problems and outlined some of the opinions he had formed after touring the world as a special Canadian lumber commissioner. Mr. MacMillan said in part:

It is now realized by foresters on the Pacific Coast that in the stumpage situation they are face to face with a problem even more serious than fire protection, more difficult to handle, and more dangerous. I say more dangerous for the reason that it now lies in the hands of an unorganized, inexpert mob of timber owners on the Pacific Slope, by stampeding to cut their holdings, to cause more loss to the state and the public, by maintaining an over-production of lumber, than can reasonably be expected from any series of bad fire seasons. I do not depreciate the danger of fires. I simply desire to emphasize that billions of stumpage held by financially weak holders, unaware of market conditions, or determined to take their loss and rescue a part of their investment, constitutes a club held over Pacific Coast forest poilcy, which under present conditions will render it impossible for any government to insist on clean logging or provision for future crops. We all realize that it is over-production of lumber—or, in other words, lack of broad enough markets—that restricts our logging to the cream of the forest and, even on the best tracts, leaves a third of the timber on the ground. We all know that while such conditions continue, these—the last best virgin forests—will be destroyed without being utilized.

Here, then, is the problem for the forester on the Pacific Slope. It is a greater problem than fire protection, now that co-operating forces have controlled fire losses. The forester on the Pacific Slope must broaden his outlook; he must blaze a new trail; and, while he may have in certain denuded districts the same duties as the foresters in the East or elsewhere, in restocking and protecting wrecked forests, his great work is the handling of the vast surplus asset of timber in such a manner that it may be put on the market only as the market requires it, without waste, without loss in operating, and without forest destruction.

How Over-Production Is to Be Remedied.

This is the problem which has confronted the Provincial Forest Service since the preliminary organization was completed. Needless to say, it is not only one of the great problems of public policy in British Columbia, it is an issue in which all governments administering forest lands on the Pacific Slope are vitally interested. This problem of over-production can be met only in two ways—by greater sales of lumber or by control of cut. The control of cut has never yet been considered. The hope of all interested has been in greater sales of lumber. The Forest Service, in supporting the investigation of foreign lumber markets through the machinery of the Canadian Department of Trade and Commerce, desired to learn once for all what foundation of reality lay behind this hope.

I have endeavored, as briefly as possible, to make clear that the over-production of lumber here, both real and threatened, constitutes a grave public problem. This over-production should now and always receive the earnest consideration of foresters as the greatest obstacle in the way of wise, permanent management of standing timber and timber lands, and of loggers, lumber manufacturers and private individuals, as the greatest hindrance to profitable and sound commerce.

The export market hs not yet been of great importance. At present it takes about 600,000,000 feet annually, something equal to the gross output of three good-sized sawmills. It has been felt, however (perhaps because of the long years of talk of an approaching timber famine) that this market should soon expand so rapidly as to provide the relief for Pacific Coast conditions. The object of my investigation was to ascertain if and how the export market might relieve Western Canada's surplus of timber production.

I have visited the countries which in the past have used about one-half of the Douglas fir exports—United Kingdom, Europe, Africa, India, and Australasia. The countries using the other half—China, Japan, and South America—have not yet been investigated, but doubtless the fundamental conditions affecting probable future demand and marketing will be found much the same everywhere.

Woods Competing With Douglas Fir.

Douglas fir has come on the markets of the world a new wood. It has gained its entry because of the great lengths and dimensions in which it could be secured. The standard wood for interior finish, flooring, ceiling, everywhere, and for rough construction in Europe and Africa is Scandinavian or Russian deals (spruce and pine). These woods are used in preference to Douglas fir even where they are more costly. They constitute the bulk of the European and African imports, and are universally used in Australia for flooring and dressed stock. The exports from Sweden alone are about 3,000,000,000 feet per year, twice the entire cut of British Columbia.

Pitch pine is the great competitor of Douglas fir for use in public works, the better class of interior finish, heavy floorings, harbor and railroad uses. Wherever in Europe, Africa, or South America pitch-pine can be secured it is taken in preference to Douglas fir. The only markets visited in which Douglas fir has reached anything like general use are the South Sea Islands; elsewhere it has reached only a partial use, and has yet to compete with other imported woods which for various important purposes are still regarded as staple necessities for which Douglas fir cannot safely be substituted. For instance, in Australia all ceilings, linings, partition stock, flooring, and imported weather-boardings are Baltic, chiefly Baltic spruce. Over $3,000,000 worth of this is imported yearly at prices which we might regard as competitive.

A plain duty faces those interested in the production of Douglas fir. They should at once organize to make sure that at least in all countries where Pacific Coast woods may be sold at prices competitive with either Baltic or pitch-pine their use may be made more general. Many anomalies now existing in the use of Douglas fir particularly might be removed.

Use of Douglas Fir in Australia.

Australian mines depend wholly upon Douglas fir for mining timbers. They believe Canadian fir to be heavier than timbers from the United States, and as the mining timber is hauled several hundred miles inland by rail they have placed an embargo on the use of Canadian timber. On the other hand, less than half the mines of South Africa will use Douglas fir. Pitch-pine is the staple wood, and is used at consistently higher prices. The mines that use Douglas fir haul it 500 miles inland; about two-thirds of the fir they use is Canadian, and none of them have yet discovered that it is heavier than that from the United States. If Canadian timber is not heavier in Africa it should not be heavier in Australia. If Douglas fir represents a saving to one-half the mines of South Africa it should represent a saving to the other half.

It must be admitted that Pacific Coast woods are only yet in their preliminary uses abroad. Four factors which must lead to increased use of these Western timbers may be briefly reviewed.

1. Many countries importing our woods have in the past depended upon us for almost a negligible supply of their requirements. Even Australia produces domestically twice as much timber annually as is imported. Our timber is used only for studding, rafters, joists, and rough construction and sheathing. Australian supplies, as well as those of New Zealand, are rapidly diminishing. Imports must increase to make up the balance.

2. Great Britain and Europe have depended upon European supplies, chiefly adjacent to the Baltic. The prodigal use of timber during the war, the construction during the war of probably four times as many buildings, public works and improvements as now exists in Canada, and the obliteration of forests along the widespread firing line, must have upset the forest balance of Europe and created a deficit to be met from importations.

3. Many importing countries are on the threshold of development. This is particularly true of Africa, Asia, Australia, and South America. The development of these countries will not open up new supplies of coniferous timber, cheaply produced, easily worked, adaptable to a variety of uses. Importations will therefore increase.

4. The field from which imports may be drawn appears to be narrowing. Scandinavian exports to countries outside Europe must shrink. Importers in all countries have marked a consistent falling off in the quality and dimension of pitch-pine exports in the past ten years. These have been the two chief exporting regions. We stand ready to make good their losses with timber suitable for the same purposes.

These factors governing the offshore demand for fir act constantly and rather rapidly. The substitution of Pacific Coast woods for Baltic and pitch-pine has been greatly aided by the war. The enormous demand suddenly created forced thousands of woodworking establishments, railroads, industrial concerns, engineers, to utilize stocks of Douglas fir for purposes for which they would have refused it under any other circumstances. They are now familiar with the timber, and in the future will accept it whenever it is cheaper. The demand for the timber, in spite of the preferred Baltic and pitch-pine competition,

could be greatly increased if the combined Pacific Coast manufacturers co-operated to educate foreign consumers, as is done by the producers of practically all other commodities.

Probable Demand for Pacific Coast Woods.

I am not yet prepared to say, taking into account the effects of increased timber use, diminution of other supplies and more effective marketing organization, what may be the expected volume of demand for Pacific Coast woods. The market could readily be doubled at present if modern selling methods were adopted. Taking into consideration the other factors mentioned, I believe it may be again quadrupled in a decade.

Against this probable new demand for timber must be set the possibility of opening up Eastern Russian forests. Great areas of pine and spruce exist near the Pacific Ocean, in Russian territory. A small export business is now developing. It is to be feared that British, European, and Japanese capital will here open up new forest areas, with unfortunate results for us.

Attitude of Majority Towards Export Trade.

Granted an increasing market, we have yet no assurance that it will greatly assist us in taking care of the over-production in Western Canada. We do not get as great a share of the business now as we might because we do not endeavor to get it. Excepting for a very few mills, who have kept in touch with the export business, the attitude of the manufacturers has been, "We do not care about export business." The reasons for this lack of interest in the export trade are few and readily located. The mills at present existing were built especially for the rail trade. Such export trade as was looked for was chiefly in schooners not loading over 75,000 feet per day. Ninety per cent. of the export trade in normal times has passed to steamers loading as high as 400,000 feet per day. Not sufficient Canadian mills have kept pace with the loading facilities existing in the United States to constitute this a competitive buying market. The mill managers and owners in Canada have almost all been more familiar with the rail trade, and have given more care to its development. Many of our mills are not, taking overhead into consideration, in a position to manufacture for the export market at costs competitive with the United States. The domestic market has appeared at various periods, the present for instance, to return higher prices than the export market. Whenever the domestic market has been higher most of the Canadian mills have neglected their export opportunities, with the result that few permanent connections have been developed. Canadian mills are criticized by many buyers for showing an unwillingness to quote on enquiries for future delivery, for getting behind on deliveries of both parcel shipments and cargoes, and for overlooking many little points of attention to foreign customers.

These conditions existing over a term of years have almost closed British Columbia ports against the export of lumber. The foreign importer has discovered by experience that the manufacturing and exporting facilities for handling all the items likely to come up in a large cargo trade do not exist in our ports to such an extent as in United States ports. Therefore all foreign connections have been established in United States ports, with the result that shipping and merchandising of all lumber sold foreign is controlled by United States interests. If the export trade increased rapidly we would get little or none of the increase, so long as our present facilities and attitude remained unchanged.

Canadian mills cannot be blamed if they have discovered in the rail trade an outlet for their product that will be more profitable than offshore shipments and permanently satisfactory. It is to be doubted, however, if rail trade can be depended upon for more than temporary relief.

Situation Will Change in Next Few Years.

We know the present conditions cannot continue indefinitely. The only possible logical course of events will bring about the opening up of the mills now closed down. The rail prices will then fall to the level of the export prices if, when all costs are taken into consideration, they have not been at that level during the average of the past five years. The situation will be intensified by the certain erection in the next five years of new sawmills by those timber holders who feel they must soon realize on their investment. The existence of a certain working over-production on the domestic market will lead a few at least of the mill-owners to put their mills on a basis where they can compete with any groups of United States mills in despatch, price, and quality. There is room for improvement in this direction. My argument is that the same forces that have driven United States mills into the export market at the present level will, within five years, operate in the same manner on Canadian mills. It is to be hoped that before that time some co-operative means will be discovered of controlling lumber prices so as to prevent selling at a loss, of marketing all grades abroad, instead of robbing our stumpage, and of handling the fundamentally serious condition created by the present method of timber ownership.

We may, therefore, look forward to a time when sufficient mills will exist in British Columbia, thoroughly equipped for the export trade to constitute this a competitive buying market. So soon as this is a competitive buying market, in which a foreign buyer may depend upon having every enquiry filled at the same terms as in the United States, there will be developed here the exporting, trading, and shipping machinery. This organization is necessary to represent the foreign buyer, acquire freights at competitive prices, assemble cargoes, place buying cargoes most advantageously, and finance shipments. Until such an organization is established we cannot expect to develop any important export trade. Trees, harbors, and sawmills in themselves do not constitute the sole basis of an export trade. There must be, further, a perfect willingness to meet all competitors at every point of interest to the buyer.

Whether the export business that will come when we are forced down to United States export prices will come at a profit or not will depend upon the co-operative forces awakened on the whole Pacific Coast. Foreign prices will always be fixed by the person willing to sell lowest. If all co-operated in maintaining prices at a profitable level, trade would in no sense be decreased. This is a matter of such great importance to investors, manufacturers, and the public that it is to be hoped that governments, timber-owners, and manufacturers will be able to get together to prevent the selling of a great staple commodity below cost and to prevent the rapid skimming over and consequent destruction of a great forest asset. This is a movement in which Canadian timber holders and investors should co-operate with those similarly situated in the United States.

The Forest Dollar

Although the interests of the farm and the forest have been regarded in the past as more or less distinct and hostile, the broader outlook stimulated by the war has brought intelligent Canadians to understand the woodsman and the agriculturist as close partners in the great Canadian estate. More than 60 per cent. of the whole area of Canada is adapted by nature for growing timber or held as permanent barrens, and will not produce field crops profitably. On this 60 per cent. no farmer desires an acre. At the same time it ought to be pro-

ducing revenues for the nation. As much of it as possible should be kept under forest growth, producing wood crops regularly. This is the argument for "forest conservation" in a nutshell. No one asks to be allowed to use agricultural lands for tree growing. And no farmer will object if the country maintains non-agricultural lands in their natural money-making conditions, giving timber harvests year by year.

The forest dollar, therefore, is not earned at the expense of agriculture, but is the ally and supporter of agriculture. Canada takes $200,000,000 a year from the forests, and a very great part of this amount goes to purchase farm products. Until every destructive forest fire is stopped and every timber-growing area restored to its productive condition Canada's agricultural interests must suffer the chief loss. Of every hundred dollars that come out of the forest seventy-five dollars go for wages and supplies. The remaining twenty-five dollars pay interest on the lumbermen's investment and help make up the $7,500,000 taken by the provincial and federal governments each year in taxes.—Canadian Forestry Association.

The annual meeting of the Canadian Pulp and Paper Association will be held on January 31st at the Ritz-Carlton Hotel, Montreal. About 175 delegates are expected. Sir George Foster has promised to speak on "Export Trade After the War." In the evening a dinner will be held, at which Sir Robert Borden will be the principal speaker. The consuls-general of the allied countries and some of the Canadian cabinet ministers will also be present. The technical section of the association will hold their sessions on the 30th and 31st of January.

Foreign Markets for B. C. Lumber

An Outline of the Opportunities Presented and the Competition that has to be Encountered.

"The markets abroad for British Columbia lumber" were discussed in an article contributed by Mr. H. R. MacMillan, Chemainus, B.C., to the Annual Financial Survey of the Toronto Globe. "Canada's forest problem east of the Rockies," Mr. MacMillan says, "is wholly one of forest exhaustion. The domestic and foreign demand for lumber and pulp products has already reached the point where further expansion of output in the case of lumber is not to be expected in any province, and in the case of pulp products, only possible at the cost of lumber production, and then only at the almost certain risk of exhausting forest areas more rapidly than they can be replaced by nature.

"The great public problem before eastern Canada is not one of timber trade extension, but one of forest management and protection, in order that the many forest industries may no longer be able to develop markets more rapidly than the country, considering fire losses, can supply the timber necessary for raw material.

"It cannot be pointed out too often—the enormous repeated fire losses show that the public does not yet understand the value of the northern forest—that eastern Canada enjoys an extraordinarily valuable strategic position in the world's timber trade. The spruce, pine and hardwood forests of the four mainland provinces lie alongside the base of a great triangle, one corner of which rests in war devastated Europe, clamoring now for generations to come for timber and pulp; another corner lies in the wealthy northeastern United States, where live the most prodigal pulp and wood users of history, whose domestic sources of supply, particularly for pulp and common lumber, are all less accessible and more costly than Canada's; the third corner of the triangle lies in the open Atlantic within easy reach of South Africa, Central and South America, and even Australia—countries in which eastern Canada, if she had sufficient forest supplies for export could easily build up twenty times the trade she enjoys at present by digging into the $10,000,000 worth of spruce exports monopolized with those countries by Sweden and Norway.

"The problem of forest trade is entirely different in the Pacific Province. Here the forest, stretching along thousands of miles of ocean costline, is both several times greater than the eastern forest available for export ever was, and in point of fire destruction and destruction by logging or land clearing is two hundred years nearer the virgin state.

"It is estimated that under present conditions the annual production from the British Columbia forests might safely reach six billion feet without imperiling future crops. This estimate, considering the closer utilization that would come with a greater demand, is probably low. The best years up to date have taken less than two billion. The Canadian market henceforward is expected to increase slowly. The only remedy is in the export trade. Without this remedy the development of this part of western Canada will languish, the return on investments will be small, the population will increase but slowly, and agriculture, which in a timbered, mountainous country proceeds as the lumber industry provides the market for labor and products and clears the land, will require generations to realize its possibilities.

"The only prospects for increase of export trade are in competition with the Gulf of Mexico and with Pacific coast regions of the United States. The most serious competitor standing in the way of the development of Canadian export trade in lumber from the Pacific coast is the United States. Although two-thirds of the lumber imported by the world at large (amounting to five hundred million feet annually) is from the Pacific Northwest, and is taken by British communities, only one-thirty-third is taken from Canada—the only possible British source of supply. That this should be so is due to a combination of circumstances in no way connected with Canada's ability to supply the trade.

"The rapid development of the Canadian domestic market since the beginning of this century has resulted in coast lumber manufacturers concentrating themselves on this market. Meantime their American competition, possessing greater reserves of capital and always having in hand a surplus for export, have constantly maintained and developed their export connections, with the result that in all British communities United States lumber and United States exporting houses are well known, in many cases to the exclusion of Canadians and the Canadian product.

"The position of the United States has been greatly strengthened by her purchasing power, which brings to her shores with imports the vessels necessary to carry lumber, which if they come to Canada nearly always come in ballast. Further, there has been developed in the United States a group of shipping companies specializing in trading with the various lumber importing countries. So firmly have these houses become entrenched through expert knowledge, honorable dealing and trading connections, that Canadians selling lumber, fixing tonnage for Australia, or London itself, are nearly always forced to deal through their American competitors.

"The situation stands thus—the greatest demand at present for export lumber from the northwest coast is in British communities. The remaining demand is in countries such as China and South America, where British money furnishes the motive power. The trade goes now to the United States. The necessary raw materials are to be found in Canada as accessible and as high in quality as any in the United States. A mobilization of Imperial resources of manufacturing and shipping ability should certainly bring at least one-half the trade to Canada, and bring an export trade of three hundred million feet annually to Canadian ports.

"The prospects for the future would be for a great increase above that total. The use of Pacific timbers in the export markets of the world is increasing rapidly as other sources diminish. At present the increase goes wholly to the United States. Canada can only get it by some such Imperial co-operation as that mentioned, which would enable her to overcome the great lead the United States has acquired by having started first."

Russian Lumbermen Getting Ready

Before the war Canadian lumber exporters were watching enviously the increasing encroachment of Russian timber exports upon the markets of Great Britain. In fact, Russia's exports to Great Britain had come to occupy the leading place, and their percentage of the whole import was steadily increasing. The war changed all this, and Canadian exporters of timber have been benefitting by Russia's inability to deliver timber. When peace comes, however, there is no doubt that Russia will again come to the front as a timber exporting country. The lumbermen of Russia are already studying the subject minutely, as is shown by an article published in a recent number of "Russia" and reproduced in part in the American Lumberman. Active steps were taken, this article says, at the Second All-Russian Congress of Representatives of the Lumber Industry, held August 7, 1916, looking toward a rapid development of the export business immediately following the declaration of peace. A council was appointed, and, after a thorough study of the question, made a report setting forth the needs of the industry, if it is to prosper. In some ways these recommendations are startlingly like those that have been presented to American manufacturers who expect to engage in the export business. For example, one of the recommendations set forth the need of organizations of Russian timber exporters to regulate the manufacture of lumber and to maintain prices in foreign markets. Other steps urged were the complete manufacture of the trees instead of exportation in the form of logs; an accurate survey of Russia's timber resources; the building of additional railroads in the manufacturing districts; the cutting of greater quantities of timber in the forests belonging to the state; that in certain sections concessions be granted to large corporations not only of timber but of water or hydro-electric power for manufacturing purposes; making more attractive the investment of capital in the lumber industry; that limitations imposed by the corporation laws be removed; and that a special tax on all shipments be collected by the government, the resulting funds to be used for promotion work and in thoroughly organizing the industry.

The article mentions Italy as one of the best prospective customers of Russia, and states that the Russian lumber manufacturers will have to prepare to supply Italian consumers with sleepers, telegraph poles, construction and building lumber—in fact, wood of all sorts. It is pointed out that for sleepers alone the normal demand in Italy is for over 84,000,000 feet annually, while the average demand for foreign woods exceeds 847,500,000 feet annually. The softwoods were mostly obtained from Austro-Hungarian dealers, who monopolized the market before the war. Greece is pointed out as another important market for Russian wood. Until the war much of the wood imported into Greece was obtained from Austrian forests, but because of the war the industry in that country (especially in Bukovina) has suffered very seriously, and years will be needed to recover and re-establish the export trade, even if it ever is possible to do so. The article states that a representative of a large firm at Pireaus, which is the largest lumber centre in Greece, has addressed an enquiry to the representative of the Russian Ministry of Commerce and Industry asking for names and addresses of Russian sawmills that will take large orders. This firm is willing to make a contract on f.o.b. Russian port basis, delivery after the opening of the Dardanelles.

Much space in the article is given to a description of the walnut resources of Russia and the wonderful possibilities for establishing a profitable thin veneer and rifle-stock factory at some Black Sea port. The walnut resources of Russia are said to be enormous, especially in the Caucasus and Transcaucasia, where there is "an unlimited supply."

All of this seems to indicate that this sleeping giant is awakening from its lethargy, and that in future forest products of Russia are going to come more and more into competition with American lumber abroad.

Conference on Forest Fire Protection

A somewhat unique meeting will open in Montreal on the 1st and 2nd of February, when a score of experts in forest fire protection will gather in conference to discuss Canadian forest guarding problems. Officials from Oregon, Minnesota, Michigan, and other states will join with the fire inspectors and managers of the Quebec mutual protective associations, and there will also be present federal and provincial officials, lumbermen, pulp and paper men, and all of the general public who care to be present. Forest protection has been developed in recent years to a point where the old haphazard methods have given place to a most accurate science. The use of telephones, lookout towers, pumping outfits, aeroplanes, motor cars, and other mechanical aids in fire detection and fire fighting will form features of the discussion.

Canadian Forestry Association Annual Meeting

Many new problems in forest conservation have come to the fore during 1916, and several of these will be included in the programme of addresses at the annual meeting of the Canadian Forestry Association, Chateau Laurier, on January 15th. Mr. T. J. Welsh, a leading Minnesota lumberman, is expected to be present to tell how the lumbermen of that state, under the laws now in effect, destroy all "slash" immediately following their lumbering operations and thereby eliminate a great fire hazard. The grave danger of a virulent disease, "white pine blister rust," now attacking white pine in Canada and the United States, will have a thorough discussion at the hands of Dr. H. T. Gussow, Dominion Botanist, and with the assistance of other speakers. In the evening a dinner will be held at the Laurentian Club, Ottawa.

Douglas Fir a Fine Furniture Wood

The accompanying illustration is of special interest to lumbermen handling British Columbia Douglas fir. It represents a mantel constructed of Douglas fir. The stiles, rails, and framing are of edge grain Douglas fir, and the panels of three-ply rotary cut veneer Douglas fir. The mantel, which was designed by Mr. S. MacClure, a well-known architect of Victoria, B.C., illustrates the unquestionable fitness of this excellent wood for such a job. Mr. L. B. Beale, British Columbia Lumber Commissioner at Toronto, to whom we are indebted for the illustration, reports that there is quite a strong enquiry for British Columbia lumber from furniture manufacturers. He also states that agricultural implement makers are using British Columbia woods in larger quantities, three of them in Ontario having already placed orders for their supplies for 1917.

Trade Conditions Near the Front

U. S. Lumberman Returns from England and France with Vivid Impressions of the Allied Spirit of Sacrifice.

Mr. T. E. Ripley, vice-president of the Wheeler, Osgoode Company, in a letter from Tacoma, Wash., to the American Lumberman gives an interesting account of his impressions during a recent visit which he made to England and France. "From the time I landed in Bordeaux in the early part of August, until I left Liverpool," Mr. Ripley says, "I have been so thoroughly examined by various examining boards that I am quite sure there is nothing left of me that has not passed the scrutiny of either French or British officialdom. State papers, covered with the mysterious seals and stamps, attest the fact that I am not a spy, though I began to be very sure before I got through that I was one.

"To tell you of the condition of the lumber trade, present and prospective, must be simply to record my own impressions. Conditions change like lightning over there, details of buying and selling going through a revolution about every week. As far as the buying of American stock goes, naturally, with no ships afloat in which to carry it, just at present, to use the language of the farmer at the menagerie, 'There ain't no such animile.'

"During the time I was in France the Government issued sweeping prohibitions against the import of lumber or any of the so-called lumber products. This was for the purpose of protecting the ultimate buyer by a general oversight over terms, quantities, and conditions generally, and to prevent the cornering of the market by speculators. Special exceptions are granted as occasions arise, so that actual importations for present war needs were being made from neutral European countries, that from Switzerland coming most under my personal observations.

"Switzerland is cutting and shipping, apparently, quantities of lumber greatly in excess of normal, for the most part low grade stock for such uses as ammunition boxes, trench work and railroad ties. For the latter there is a strong, insistent demand, as is natural in consideration of the miles of temporary railroads that are being built for purely military purposes.

"Recently a joint commission has been formed of representatives of France and England for the purpose of considering questions of economical cutting of the national forests, and not neglecting, even in these days of stress, the consideration of reforestation. A friend of mine in London, who has long had a passion for forestry, silviculture and forest management, is on this commission, and his pictures of the

An attractive mantel made of Edge Grain Douglas Fir with Three Ply, Rotary Cut Douglas Fir Veneer Panels.

Canadian lumber-jacks cutting in the national forests of France, and Belgian lumberjacks in Scotland, are most interesting.

"The French Government exercises without scruple its war-time privileges, and commandeers, with scant apology, all sawmills capable of producing the kind of lumber required at the moment. A French friend of mine, a large dealer, was, at the moment I was there, under contract to furnish box lumber to one of the huge munition plants. The lumber was not coming fast enough to suit the requirements of the munition-making plant, which in turn was under contract to deliver so many cases a day. The dealer, who luckily has access to the ministry, applied for the formidable looking papers with the red seals on them, obtained them, and, armed with this blood-curdling device, proceeded to lay down the law to the sawmill man, who, poor fellow, was just then enjoying some fat orders of a private nature, on which he could make a handsome profit. The document was more effective than a 42-centimeter gun. The sawmill man capitulated, stopped sawing on the more profitable business and proceeded meekly and obediently to the sawing of box lumber for the munition plant. It is well, you see, to stand within speaking distance of the ministry f you are doing business in France.

"As to the prospect for future business in France, that depends. It is certain that large quantities of lumber are going to find their way to the stricken countries from outside sources. At the same time it is well to remember that the imagination of American producers has been fired by various and sundry large inquiries which, when boiled down, develop into repetitions only and under different guise of the same inquiry, and when still further reduced to actualities they develop into a pipe-dream of some would-be speculators, who know nothing of conditions, nothing of French needs and nothing of financial responsibilities. One large inquiry, I discovered, had its origin in the brain of one of the guides to Paris night life, who infest the corners near the American Express Company and Thomas Cook & Sons' offices, looking for easy Americans with a combination of money and vicious tendencies. This fellow would sell lumber, picric acid, 75 millimeter shells, or if you didn't want to buy any of these trifles, he was ready, for a few francs, to show you Paris at night.

"Whatever the volume of European buying may be, the American should not think to hop into the office with his grip, pull out his price list and his order book and get to work. The Frenchman doesn't do it that way, nor will he, however pressing his needs may be, do business at all unless he finds himself face to face with a sympathetic and understanding business friend. The Frenchman's skin is a trifle thinner than most. He is quick to respond if the right cord is touched, but he will shut up like a clam on contact with anything that irritates his finer sensibilities. And the mystified salesman may never know why he failed, so scrupulous will be the courtesy that is accorded him even while his hat is being handed to him and he is insensibly moved toward the door. A knowledge of the French mental make-up and an understanding of the French point of view are quite necessary before great things can be accomplished.

"The reconstruction of the stricken areas of France and Belgium is, of course, going to be one of the necessary results of the war. At the present time, in spite of the very great need that seems to exist, the French people are occupied with more necessary and pressing problems, and only consider the providing of material with which to reconstruct these areas as something that must be looked at in the future. Undoubtedly a good deal of lumber will be imported into Great Britain after the war. At the present time there is a law that prohibits the taking of any contracts for house building of a greater size than five hundred pounds, or $2,500. The result, of course, is that building has been at a standstill and the accumulated needs for building will be met rapidly after the war and will certainly stimulate buying to a considerable extent in England.

"It's good to be home again, but I can't help wishing that I could detect in this country something of the spirit of sacrifice, something of the idea of nationality, and something of the serious devotion to national ideals that is so marked in France and England. If one million Americans could be transported to those countries to observe, what a new idea they would get of what it means to make a real nation."

Volume V. of the Consumers' Register

The new issue of the Consumers' Register (Volume V.) of the National Hardwood Lumber Association is off the press. and has been placed in the hands of the association's members. This is the largest and most complete edition of this work thus far published. It covers a much wider range than ever before, reaching into several sections not previously touched, and its subject-matter is drawn from twenty-six different states, extending from New Hampshire to California and from Georgia to Canada. There is, in fact, no particular portion of hardwood-consuming territory that is not represented in it. It contains the lumber requirements for the year 1917 of over 600 of the leading factory consumers of hardwoods in the United States and Canada, these requirements in the aggregate exceeding one billion, five hundred million feet.

Calendars for 1917

A fine large office calendar has been sent out by the firm of Geo. Gordon & Company, Limited, Cache Bay, Ont., to their friends in the lumber trade. As usual, this firm has selected a large sized office calendar, with a very attractive reproduction of a painting, entitled "Near to Nature's Heart," showing a scene in the forest, with a deer drinking from a river in the foreground. We are sure that this calendar will be much welcomed by those who are fortunate enough to receive a copy.

Terry and Gordon, wholesale lumber dealers, Toronto, have sent out a unique calendar for the year 1917, to their friends in the trade. The calendar pad is mounted upon one of their T. & G. quality brand clear cedar shingles. The calendar in this way will serve as a continual reminder of the fact that this firm's shingle stocks, as well as the other stocks they handle, are of excellent quality.

We have received from Mr. Wilfrid H. Pauze, lumber merchant, Cote des Neiges, Montreal, a calendar with an unusually large date pad, the calendar being particularly useful for office purposes. The illustrated portion consists of reproductions of a house and a bungalow covered with British Columbia red cedar shingles, with a sample of V joint sheeting of British Columbia fir in the centre.

The Eagle Lumber Company, Ltd., wholesale lumber dealers, Montreal, have favored their friends with a calendar for the year 1917. The calendar will appeal to lumbermen in particular, as it carries a handsome colored illustration, entitled "The Source of Supply," representing a load of logs being drawn through the bush by four horses.

A fine large office calendar for the year 1917 has been sent out by the McGibbon Lumber Company, Limited, to their friends in the trade. The calendar contains a colored reproduction of a painting entitled "Near to Nature's Heart," which will appeal especially to all whose business brings them into touch with the forests.

Jos. Bedard & Sons, Registered, Richmond, P.Q., and Quebec, P.Q., have again favored their friends with an attractive calendar for the new year. The calendar carries on its mount a reproduction of a sylvan scene, entitled "'Neath Interwoven Branches," showing a vista down an avenue of fine large oak trees.

An attractive colored reproduction of a painting by Thos. Moran, N. A., entitled "Falls at Toltec Gorge in the Rockies," is a feature of the 1917 calendar sent out by the Wilson Lumber Company, Portland, Me. The Wilson Lumber Company deal especially in cypress and North Carolina pine.

New Jeffrey Storage Battery Truck Bulletin

The Jeffrey Manufacturing Company, Columbus, Ohio, have issued a new bulletin, No. 200, containing illustrations, specifications, and descriptions of their various types of storage battery trucks, which are adapted for use in industrial plants, factories, lumber yards, paper mills, etc. These trucks have effected large savings in time, labor, and expense in plants where they have been installed. They are designed to carry the load as well as to push or pull the loaded cars, no skilled labor being required for their operation or handling. Either Edison or Exide types of storage batteries are regularly used, though other types may be specified by the users.

Atlas Asbestos Company, Limited

After many years of experience, Turner Brothers Canada, Limited, have concluded that their incorporated name has certain limitations and does not indicate that their principal product is asbestos in all its manufactured forms. In consequence they have, by letters patent, altered the firm name to that of "Atlas Asbestos Company, Limited." They desire to make it clear that there will be no change whatever, other than in name, the personnel, policy, service, and products remaining identically as heretofore.

The Link-Belt Company Blows in New Furnace

The fifth furnace at the Belmont plant of the Link-Belt Company, Indianapolis, was blown, in the middle of December, adding materially to the capacity for producing malleable Link-Belt. Extensive building operations at the Belmont works have been completed, and the manufacturing activities reorganized to keep pace with the increasing demand for Link-Belt for all conveying, elevating and power transmission purposes.

Last year the output of logs on the Miramichi River was 68,200,000 feet. This year it is expected that the output will be over 90,000,000 feet. The labor situation on the Miramichi is not quite so troublesome as in other parts of the province.

How Loggers are Fed in the South

Camp Menus Show Important Differences in Comparison with Food of Canadian Crews

Logging camp foremen in Canada who are now considering anxiously the cost of feeding their men during the winter months on the expensive rations that the market affords this year will be much interested in an account of the way in which men can best be fed in the logging camps of the Southern States. Dr. R. B. Austin, camp physician for the Fernwood Lumber Company, Knoxo, Miss., delivered an address at the sixth annual convention of the Southern Logging Association recently in which he said:—

"Foods are needed to supply the energy demanded for carrying on all body functions, to furnish material for the building and repairing of tissues and to provide suitable chemical and physical conditions for the numerous processes that take place within the body.

"We should include among all food those substances that we eat that yield energy and also those that serve other important purposes in normal circumstances.

"A supply of energy is in the first condition in the diet, since without it all functions must stop.

"Practically all the supply comes from the protein, carbohydrate and fat. It is important to recognize that the value of these classes of substances in the production of energy is not equal and that it is not dependent merely upon their bulk or weight, their relative digestibility or other such factors; but upon the amount of energy that they can actually be shown to yield when they undergo combustion.

"A man doing heavy work should have from 3,000 to 4,000 calories per day.

"We will now consider what we think to be a well balanced and comparatively cheap diet for one man one week, taking up each meal separately as follows:

SUNDAY	Containing		
Breakfast—	% Proteids	% Fat	% Carbohydrates
4 biscuits	11.5	4.2	6.8
2 fried eggs	18.4	3.9	.3
2 oz. butter		5.2	
2 oz. grits	1.5	1	9.9
1 cup of coffee or tea			
Dinner—			
¼ lb. fried chicken	18.3	5.2	
⅛ lb. rice	1.5	1	.1
2 oz. gravy		12.5	.5
1 glass milk	8.4	6.2	.6
2 slices cake	1.	1.2	9.
Supper—			
1 glass milk	8.4	6.2	.6
1 piece lemon pie	.5	1.2	4.5
2 slices cake	1.	1.2	9.
MONDAY			
Breakfast—			
⅛ lb. fried bacon	1.3	8.2	
⅛ lb. rice	1.5	1.	1.
2 oz. gravy		12.5	.5
2 oz. butter		5.5	
4 oz. bread	3.7	.5	19.9
1 cup tea or coffee			
Dinner—			
4 oz. peas	4.6	.4	14.8
4 oz. corn	1.1	.3	9.4
4 oz. bread	3.7	.5	19.9
2 oz. molasses	.4		8.5
Supper—			
4 oz. cabbage	.3	.1	1.2
4 oz. corn bread	1.1	.3	9.4
⅛ lb. boiled bacon	2.6	14.6	
4 oz. bread	3.7	.5	19.9
1 oz. butter		2.6	
TUESDAY			
Breakfast—			
⅛ lb. ham	2.3	4.6	
¼ lb. grits	1.5	1.	9.9
2 oz. butter		5.5	
4 biscuits	11.5	4.2	6.8
1 cup coffee or tea.			
Dinner—			
¼ lb. turnip greens	.3	.1	2.2
4 oz. corn bread	1.1	.3	9.4
3 biscuits	10.	3.6	4.5
1 oz. syrup	2.		4.5
1 oz. butter		2.6	
Supper—			
4 oz. boiled turnips	3.	.1	2.2
4 oz. corn bread	1.1	.3	9.4
4 oz. bread	3.7	.5	19.9
2 oz. boiled bacon	2.6	16.4	
1 glass milk	8.4	6.2	.6
WEDNESDAY			
Breakfast—			
4 biscuits	11.5	4.2	6.8
2 slices fried bacon	1.3	8.2	
¼ lb. fried sweet potatoes	.4		7.
2 oz. butter		5.5	
1 cup coffee or tea			
Dinner—			
4 lb. Irish potatoes boiled	.7		8.9
¼ lb. baked sweet potatoes	.4		8.9
3 biscuits	10.	3.6	4.5
¼ lb. roast beef	5.5	4.5	
Supper—			
¼ lb. beef steak	5.1	4.2	
¼ lb. boiled sweet potatoes	.4		7.
1 cup milk	8.4	6.2	.6
2 oz. butter		5.5	
3 biscuits	10.	3.6	4.5
THURSDAY			
Breakfast—			
2 boiled eggs	18.4	3.9	.3
4 biscuits	11.5	4.2	6.8
2 oz. butter		5.5	
1 oz. molasses	.2		4.3
1 cup coffee or tea			
Dinner—			
¼ lb. peas	4.6	.4	14.8
¼ lb. corn bread	1.1	.3	9.4
¼ lb. bread	3.7	.5	19.9
2 oz. molasses	.4		8.5
Supper—			
¼ lb. boiled Irish potatoes	.7		8.9
⅛ lb. boiled ham	2.3	4.6	
1 cup milk	8.4	6.2	.6
¼ lb. bread	3.7	.5	19.9
2 oz. molasses	4.		8.5
1 baked apple	.1	.1	4.2
FRIDAY			
Breakfast—			
2 scrambled eggs	18.4	3.9	.3
2 slices fried bacon	1.3	8.2	
4 biscuits	11.5	4.2	6.8
2 oz. butter		5.2	
1 cup coffee or tea			
Dinner—			
¼ lb. boiled pork	4.5	9.2	
⅛ lb. boiled turnips	3.	.1	2.2
¼ lb. corn bread	1.1	.3	8.4
2 biscuits	5.8	2.1	3.4
Supper—			
1 cup milk	8.4	6.2	.6
¼ lb. beans	5.6	.4	14.8
⅛ lb. boiled bacon	2.6	16.4	
¼ lb. corn bread	1.1	.3	9.4
¼ lb. bread	3.7	.5	19.9
2 oz. butter		5.5	
1 oz. molasses	2.		4.8
SATURDAY			
Breakfast			
1 cup coffee or tea			
2 fried eggs	18.4	3.9	.3
4 biscuits	11.5	4.2	6.8
2 oz. butter		5.2	
1 oz. preserves			16.5
Dinner			
¼ lb. beans	5.6	.4	14.8
2 oz. corn bread	2.6	10.4	
3 biscuits	10.	3.6	4.5
1 oz. butter		2.6	
1 oz. molasses	2.		4.3
Supper—			
1 cup milk	8.4	6.2	.6
4 oz. tomatoes	5.5	.1	4.
3 biscuits	10.	3.6	5.
2 oz. butter		5.5	
1 oz. molasses	.2		4.3

From a Canadian point of view the surprising and interesting fact in connection with the above menus is the remarkable small percentage of meat in the diet. For instance, in the course of the whole week an employee in the southern woods, living on this diet would obtain only the following quantities of meat:—Sunday, ¼ lb. fried chicken; Monday, ⅛ lb. fried bacon and ⅛ lb. boiled bacon; Tuesday, 2 oz. boiled bacon; Wednesday, 2 slices fried bacon, ¼ lb. roast beef, and ¼ lb. beefsteak; Thursday, ⅛ lb. boiled ham; Friday, 2 slices fried bacon and ⅛ lb. boiled bacon; Saturday, no meat. A glance at the daily menus will show how the deficiencies in the meat rations are made up by the use of eggs, beans, cereals, vegetables, etc.

In conclusion, Dr. Austin, referring of course to southern operations, says:—

"For the benefit of cooks or those serving, quantities are calculated so that five tablespoonfuls are equal to a fourth of a pound, or four ounces.

"Each boarding house should have a good garden, cows and a

poultry yard. This will furnish a variety of wholesome and comparatively cheap food.

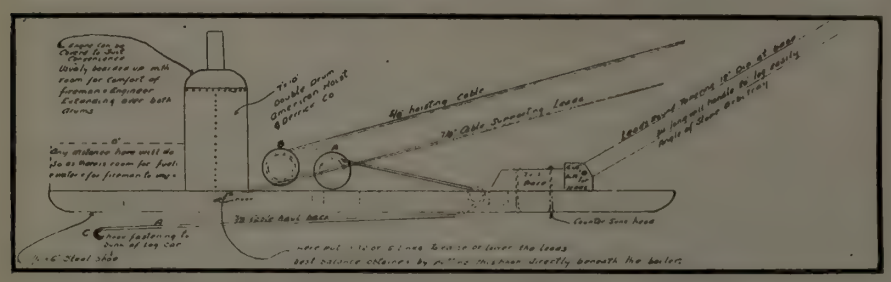
"Good cooking has a great deal to do with the digestion of food and also makes it more palatable.

"We cannot let the opportunity go by without saying something of the sanitary conditions of a boarding house, each house should be screened, well lighted and kept clean. Cooks having any contagious or infectious diseases should not be employed."

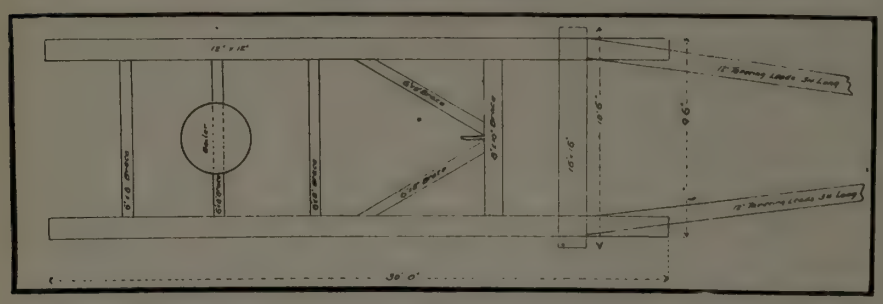
A Home-Made Log Loader

Logging operators in British Columbia working in medium sized and smaller timber are often in doubt in regard to the class of log loader they should use. A log loader "built at home," which has been operated successfully by the Otis Staples Lumber Company, Wycliffe, B.C., is illustrated herewith. We are indebted for the illustrations to the Timberman, of Portland, Ore. Mr. C. B. Staples, in describing the loader, says that the cost will be about as follows:—

For the engine, new, about $1,575; the cost of the timber and iron work would depend on camp cost, and are small factors. A black-



Home-made log loader.—Diagram showing arrangement of boiler, drums and lines.



Home-made log loader.—Plan showing sled details.

smith and helper, with a little additional assistance for setting the boiler, can build one in from ten days to two weeks, and the labor cost should not exceed $100. The cost ready to run should be under $2,000.

The loader is on a sled, and slides backwards over the cars, trucks or flats after loading the car ahead of it. It uses its own power, putting itself back with drum A. After the train is loaded, the loader is switched out standing on a car, and switched in at the head of the next train of empties.

The loading crew as a rule consists of four men: Fireman, engineer, and two men on the ground. Sometimes a top loader is used. The loading is done with a crotched line. The loading cost runs from 20 cents to 25 cents per thousand feet. Where wood is turned, either slabs are hauled from the mill or the fireman cuts his own wood.

It is very efficient for picking up the lost loads along the main line and where logs are scattered in small lots along the track, as it is moved at train speed and is ready to run on stopping. It is handy in railroad construction and for loading material, cabins, etc., and has given good service in many places.

The accompanying sketch gives the general plan of construction. The drum marked A hauls the log loader by fastening with a hook to the bunk of the log car. Drum B is the hoisting drum which can handle logs up to 20 feet in length. The machine is carried on one flat car or two Russel pattern trucks. The standard Russel car dimensions are: Length from end to end of draw bar 22 feet; length from centre line to centre line of trucks 10 feet 6 inches; length of bunks 10 feet; size of bunks 12 x 12 in. The sled can be adjusted to suit the type of car and gauge used.

Fir Flooring Face Down

By Millman

Running molding face down has proved so satisfactory of late years that a number of the fir mills have tried to make flooring the same way. Thin lumber is what prompted the experiment. Owing partly to scant sawing—sometimes poor sawing—and partly to shrinkage in kiln-drying, a certain amount of flooring failed to clean up on the top or face side. Managers and owners noticed the cull stock, and they also noticed that practically all of it was cleanly planed on the under side. It is not surprising, therefore, that many of them believed they could effect quite a saving by running flooring the same way that they run molding, i.e., face down. In some instances the planing mill foreman talked his superior out of this idea—some foremen did not and some could not.

Wherever the idea was tried out it had the desired effect; it cut down very materially the percentage of waste. Graded from the face side, a lot of flooring "got by" with rough places on the back. In fact, it was just as the manager had intended, as he reasoned this way: "If we give them well-milled flooring, with a smooth, clean face side, what more can they ask?"

Everything went along very nicely until some of this "face-down" flooring found its way to the carpenters. They had difficulty in laying it. Although the tongue and groove fit, there was a variation somewhere, which, in places, caused a slightly uneven appearance on the upper surface of the floor.

Complaints finally came to the mill about poorly-matched flooring. After considerable investigation it was found that the thin places—those not touched by the top head—were not and could not be held firmly and closely to the bed of the machine as they shot past the tongue-and-groove heads. This produced a slight variation in the distance between the tongue and groove and the face of the flooring. One foreman, whom I know, tried to remedy this by placing a powerful steel spring to bear on the stock just back of the top head and up close to the side heads. This helped some, but it did not entirely "cure" the trouble, and, as he afterwards said: "If only 5 or 10 per cent. of the flooring mismatched that would be sufficient to bring complaints from the customers."

Even where the flooring had not mismatched slightly there was difficulty in laying it on account of the thin places. If a thin place was nailed down tightly to the joist or sub-floor one could not easily match a piece of normal thickness to it. If the thin place was left loose, a "squeaky" floor would result. Then, by running the flooring face down, more stock came out rough, on account of the heavier cut—at least 3/32 in. had to be taken on the bottom head in order to insure every piece cleaning up in good shape.

It finally dawned upon the mill heads that the idea of getting good flooring out of scant stock by running it face down, was a flat failure. To-day practically all of the mills are making flooring face up. The percentage of waste and cull stock has been cut down by sawing straighter and slightly thicker boards for this product.

If, however, the lumber is of sufficient thickness, it can be successfully run either way—face up or face down—but if run face down, every piece must be turned over after it is run, by the grader or the trimmer. Then, in many of the fast mills, the flooring is shot out or dropped onto conveyor chains, which naturally scar and mark the under side somewhat. If the best side is down, one can easily imagine the result.—The Wood-Worker, Indianapolis.

Cyrus C. Shafer Company's Thick Oak Stocks

The accompanying illustration represents a small portion of thick oak in the Cairo yard of the Cyrus C. Shafer Lumber Company, South Bend, Ind., whose stock is well known to the wagon and implement

Some of Cyrus C. Shafer Lumber Company's thick oak stocks.

trade. Mr. E. P. Morden, who has formerly been Canadian sales manager for the Cyrus C. Shafer Lumber Company, with headquarters at Toronto, has recently moved to South Bend, Ind., and expects to make his headquarters there in future. Mr. Morden will, however, personally look after the company's Canadian trade, visiting the Canadian customers. Enquiries which formerly were directed to Mr. Morden at Toronto should now be mailed direct to his office at South Bend, Ind.

KLIM
SPELL IT BACKWARD
PURE SEPARATED MILK
IN POWDER FORM
FOR ALL COOKING
WHERE MILK IS NEEDED

The Modern Milk

IN POWDER FORM

Ideal for Camp use, because it will not freeze; light to carry, quarter the weight of canned milk; keeps until used; no waste at all.

For these, and other reasons, it is known all over Canada as

THE LUMBERMAN'S MILK

Pure and Genuine—See Government Bulletin No. 257 on MILK POWDER
Used by Canadian Government for Soldiers in Camp and Barracks
A postcard will bring a sample and complete directions for use. Two Dollars will bring a trial ten pound tin, making ten gallons

For sale by All Wholesale Grocers

CANADIAN MILK PRODUCTS LIMITED

Head Office: Mail Building, Toronto. Montreal Office: 508 New Birks Building.

Plants in Ontario: Brownsville, Belmont, Burford, Hickson.
W. H. Escott Company, Limited, Winnipeg, Regina, Calgary, Edmonton.
Kirkland & Rose, Vancouver, B.C.

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PURE SEPARATED MILK
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FOR ALL COOKING
WHERE MILK IS NEEDED

Original "Dunbar" Machines

We are the original and the only makers of "Dunbar" Shingle Machines, Lath Machines, Clapboard Machines, Steam and Gasoline Logging Engines. Each is the best for its particular work. Are you using the best?

Lath Machine

From our many years of experience we evolved this "Dunbar" Original Lath Machine. Every improvement that could be suggested, every time-tested idea for the betterment of product and for greater speed, has been incorporated in this machine. We believe it has no equal, and there are a great number of mill men throughout Canada who share this belief with us. Carefully constructed of high grade materials and designed to work steadily under the hardest conditions.

Steam and Gasoline Logging Engines

Conditions in Canada necessitate an engine that will stand any amount of strain and hard work in the lumber industry. With this idea in mind we have brought out the "Dunbar" engines perhaps a little stronger than is really needed. They do their work easily and willingly, and stand a great amount of hard usage. Built entirely in Canada for the Canadian lumber trade.

Clapboard Machine

You will need no excuse for the quality of your product if you use the original "Dunbar" Clapboard Machine. Expert in every detail. This machine will give you the very best service under most trying conditions. It will turn out work without delays. It will need practically no repairs and will increase your output. We cannot recommend it too highly because it is giving this very service to lumbermen in all parts of this country.

Send for catalogues of any or all of these machines.

Dunbar Engine & Foundry Co.

WOODSTOCK, N.B.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Wanted To Buy

1½ in. or 3 in. cull, white or red pine or spruce, also edgings or slabs. Apply M. Brennen & Sons Mfg. Co., Limited, Hamilton, Ont. 2-5

SPRUCE MILLS

Inquiries for next season are coming in. I have market for your sawing of 1917. All or any part. If interested write me fully.

EDWIN D. HOWE,
P.O. Box 384 Valatie, N. Y.
23-2

WANTED

Large quantity of maple, black birch or hickory plank cuttings, 6 in. x 6 in., also 7 in. x 7 in., all 1¼ in. thick, must be dry and sound.

Also several carloads maple, beech or birch squares, 1 in. to 1¼ in. x 3½ ft. to 4½ ft. in length.

J. FINLAY & SONS CO.,
23-4 Norwood, Ont.

We Want To Buy:

5 cars 1 x 4 in. Barky Pine Crating Strips, S4S or S1S&2E.
5 cars each 1 x 8 in., 1 x 10 in., and 1 x 12 in., 10 to 16 ft. No. 3 White Pine, Rough.
5 cars each 2 x 6 in. No. 2 and No. 3 Dimension, Rough.
10 cars 1 x 4 in. and wider, 6 ft. and up No. 4 boards, rough.

W. J. Campbell Lumber Co., Ltd.,
2-2 Oshkosh, Wis.

For Sale-Lumber

Lumber For Sale

150,000 ft. 1½ x 4 and up Common and Better White Pine, good in, bone dry.

The Elgie & Jarvis Lumber Company, Ltd.,
2-2 Toronto, Canada.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
875 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal

GEO. C. GOODFELLOW,
8 Montreal, Que.

For Sale-Machinery

Saw Mill For Sale

Capacity 20,000 ft. per day. Will sell mill complete very cheap as building must be used for other purposes. Also extra 90 h.p. engine. All in first class condition.

The Field Lumber Company, Limited,
2-3 Field, Ont.

For Sale

Goldie & McCulloch Corliss Engine, 16 x 38, 150 horse power; Berlin Matcher, No. 90, good as new; Grand Rapids Engine and Generator for 150 lights.

R. LAIDLAW & CO.,
22-2 Toronto, Ont.

FOR SALE

1—Wicks Gang.
1—Ideal Engine, 13 in. x 12 in.
1—Plain Engine, 16 in. x 24 in.
1—Plain Engine, 5 in. x 7 in.
1—Boiler, 72 in. x 16 in.
1—Boiler, 54 in. x 12 in.
2—Upright boilers.
1—Cookston water heater.
Several steam pumps.

CHAS. PEDWELL,
16-t.f. McVicar, Ont.

Wanted-Machinery

Machinery Wanted

One second-hand automatic sharpener for 5-inch band resaws, rolling blocks and swages. J. Stirrett & Sons, Port Arthur, Ont. 2-2

Lumber Trucks

Wanted twenty-five, more or less. Must be in good condition. Iron wheels, 40 inches in diameter; 5-inch tires preferred.

Apply, E. D. McCallum, Drummondville, Que.
23-2

Machinery Wanted

1 Tongue and Grooving Machine.
1 Butting Swing Saw Machine.
1 Swing Shingle Machine.

All for heading mill.

C. B. Janes & Company, Limited,
23-t.f. Orillia, Ont.

Dutch Ovens Wanted

Wanted two Dutch Ovens, suitable for boilers 60 in. x 16 ft., or two boilers of about 75 to 100 H.P., equipped with Dutch Ovens. State price f.o.b. cars.

Trenton Cooperage Mills, Limited,
23-2 Trenton, Ontario.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

WANTED POSITION, by a first class mechanic, 25 years' experience in charge of modern high capacity Saw Mills. Can handle any type machinery. Address first instance, Box 497, Canada Lumberman, Toronto, Ont. 2-7

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

BAND SAWYER wants position; thorough experience and fast man. References from big firms. Single or double cut. Box 492, Canada Lumberman, Toronto, Ont. 1-3

BAND SAWYER wants position, right hand mill preferred; 20 years' saw mill experience; first class references. Box 495, Canada Lumberman, Toronto, Ont. 2-3

WANTED A POSITION AS SALESMAN in Toronto, good connection, for trim, doors, and flooring; good references. Box 500 Canada Lumberman, Toronto, Ont. 2-2

Married man, 37 years of age, with 11 years' experience in logging office of large lumber concern, desires change. Willing to go to any part of Canada. For further particulars apply to Box 498, Canada Lumberman, Toronto, Ont. 2-5

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

WANTED EXPERIENCED MAN to operate powerful Western Donkey Engine, cable and chokers unloading carloads of logs near Parry Sound. Good pay to right man. Box 499, Canada Lumberman, Toronto, Ont. 2-2

Business Chances

For Sale

Planing, saw and chop mill, and auto truck. 1¼ ton capacity, jacks, pipe dies, vise and anvil. Everything as it is half price. Want to go West. Apply to John McCormick, Lawrence, Ont. 1-6

PULPWOOD FOR SALE

10,000 acres of choice pulpwood in Nova Scotia. Excellent shipping facilities. Will sell en bloc or would consider taking contract of ten or fifteen thousand cords of rossed wood, for shipment next year. This is a big opportunity for someone. The paper industry offers a great field, and it will be more important from now on. There is no finer tract than the one offered here, with transportation right at hand. Write for detailed information.

GRANT & CAMPBELL,
24-3 New Glasgow, N.S.

FOR SALE TIMBER AND MILLS

The undersigned offer for sale in one or separate blocks their timber and mills situated on the Crow's Nest Pass Railway, B. C., viz:—

About 12 square miles near Cranbrook, B. C., well wooded with larch, fir, etc., and a mill in good working order, capacity forty thousand feet.

On Lamb Creek, near Moyie, B. C., 12 square miles, heavily wooded with white pine and large spruce.

At Yahk Station, 4,551 acres Crown granted timber land, also about 7 miles white pine, larch and spruce, and a mill with a capacity of sixty thousand feet.

At Cranbrook the company own an up-to-date plant equipped with good machinery, where, under a favorable arrangement with the C. P. R., the output from different points named can be assembled and dressed ready for shipment.

The above timber all being in close proximity to the C. P. R. and the distance to the Alberta boundary being about 100 miles, gives the producer an advantage over the Coast mills, saving from $2.00 to $5.00 per thousand feet in freight alone.

The King Lumber Mills, Limited,
23-2 Cranbrook, B.C.

FOR SALE—Factory and property at Mount Albert, Ont., 4 acres land, 7 acres water and water power, complete, 3 storey building, 40 ft. x 80 ft., stone foundation, 3 floors, approximately 9,600 feet, also lean-to, one storey, 20 ft. x 40 ft., and separate office on ground near street, 23 ft. x 25 ft. Boiler and engine auxiliary power equipment. Mill pond valuable for fishing and power. Splendid shipping facilities, C. N. R. and G. T. R. Electric light available. Ten years' exemption from taxes can be arranged. Cheap labor and comfortable homes in village. Apply Wrights Limited, 22 College Street, Toronto.
23-24-25-26

Miscellaneous

Timber Limits For Sale

For sale berth 161., Blind River waters, well situated and easy to log. 12 millions of Hemlock, 4 millions of Pine, 5 millions of Birch and Maple, and a large quantity of Ties and Cedar. Good mill here to cut stock. Drawer 67, Blind River, Ont. 2-5

Subsidy in Land For Sale

Subsidy of 48,000 acres of freehold land to be located by the purchaser at his choice within the limits of the Province of Quebec. To be sold on very good conditions before February next. Apply to

HONORE GRENIER,
84 St. Joseph Street,
2-2 Quebec City.

Tenders for Pulpwood and Pine Limit

Tenders will be received by the undersigned up to and including the 1st day of February, 1917, for the right to cut pulpwood and pine timber on a certain area situated on the Black Sturgeon River and other territory adjacent thereto, in the District of Thunder Bay.

Tenderers shall state the amount per cord on pulpwood, and per thousand feet board measure, on pine, that they are prepared to pay as a bonus in addition to dues of 40 cents per cord for spruce, and 20 cents per cord for other pulpwoods, and $2.00 per thousand feet, board measure, for pine, or such other rates as may from time to time be fixed by the Lieutenant-Governor-in-Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario.

Parties making tender will be required to deposit with their tender a marked cheque, payable to the Honourable the Treasurer of the Province of Ontario, for ten thousand dollars ($10,000), which amount will be forfeited in the event of their not entering into agreement to carry out conditions, etc. The said $10,000 will be applied on account of bonus dues as they accrue, but the regulation dues, as mentioned above, will require to be paid in the usual manner as returns of cutting of wood and timber are received.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

G. H. FERGUSON,
Minister of Lands, Forests and Mines.
Toronto, 1916.

N.B.—No unauthorized publication of this notice will be paid for. 21-2

FOR SALE—Five good Teams Horses, with or without harness and sleighs. All in good working condition, average weight about 1,500 lbs. each. Age from 6 to 8 years.
Located at our Stables, Washago, Ont.

The Randolph Macdonald Company, Ltd.,
500 Crown Office Building,
2-3 Toronto, Ont.

Advantages of Black Walnut.

The American Walnut Association of Louisville, Ky., has published a very interesting booklet describing the beauties and advantages of American black walnut in furniture making, for interior finish, in panels, and in fine cabinet work, as well as in other lines of manufacture. This wood is termed "the aristocrat of American hardwoods" by the association, and a great number of testimonials from manufacturers and other users of the woods are introduced in support of this statement. Special emphasis is laid upon the increasing quantity of black walnut that is going into furniture, as the American wood is now being used largely in place of Circassian walnut, the importation of which was stopped by the war. A partial list of the manufacturers using black walnut is given, as well as the names of the firms that are members of the association. Emphasis is laid upon the fact that American black walnut is plentiful, government reports showing that the annual cut is about 50,000,000 feet yearly.

The Canadian Forestry Association has taken up with the Governments of Manitoba, Saskatchewan, and New Brunswick the question of introducing legislation looking to making "fire permits" compulsory throughout these provinces. The response met with has been favorable, and it is hoped that legislation for this purpose will be passed at the coming session. This will practically make a "Dominion-wide permit system" for protection against forest fires, and will be a long step toward the conservation of Canada's natural resources.

Revised estimates place the amount of standing merchantable timber in the United States at approximately 2,767,000,000,000 board feet. Of this amount 1,464,000,000,000 board feet, or 53 per cent. of the total, is in California, Washington, Oregon, Idaho, and Montana.

Lightning shows a marked preference for chestnut trees, according to data based on reports submitted to the United States Department of Forestry by its foresters. Of a total of about 2,000 trees struck by lightning on the state forests in the past four years 655 were chestnut. Pitch pine comes next with 327 trees struck, and then follow in order rock oak, white pine, hemlock, red oak, white oak, black oak, locust, and sugar maple. Black birch is at the foot of the list with only one tree struck in four years. Poplar and walnut come next, only two of each being struck.

During the past fiscal year there were constructed on the national forests of the United States 227 miles of new road, 1,975 miles of trails, 2,124 miles of telephone line, 89 miles of fire lines, 81 lookout structures, 40 bridges, 222 miles of fence, 545 dwellings, barns, and other structures, 17 corrals, and 202 water improvements.

It is estimated that in 1915 about 40,000 forest fires occurred in the United States, which burned over about 5,900,000 acres and caused a damage of approximately $7,000,000.

B. C.'s New Chief Forester.

Mr. M. A. Grainger, who has been acting chief forester for British Columbia since Mr. H. R. MacMillan's appointment as lumber commissioner to study foreign markets, has been appointed chief forester. Mr. Grainger is a graduate of King's College, Cambridge, where he took a high standing in mathematics. He came to Canada in 1897, served during the South African War, gaining the South African medal with six clasps, and returned to British Columbia, where he engaged in logging. He joined the Forestry Branch upon its inauguration, and has occupied an important post in it ever since.

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Hydraulic and Screw
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VENEER
VENEER DRYERS
PULP
Special machinery made to order
WILLIAM R. PERRIN
TORONTO, CANADA Limited

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Watchman's Clocks
Write for details
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Spark Arresters

Wire Cloth for Refuse Burners
Our spark arrester is substantially built and will last for years. Don't wait until a fire has visited your property, equip your mill at once.
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Canada Wire & Iron Goods Co. Limited
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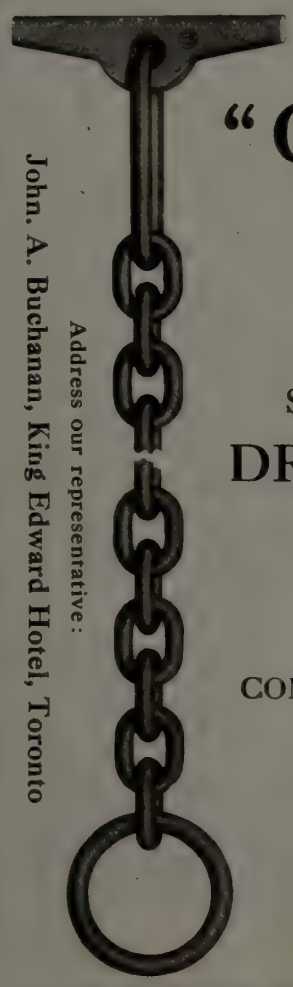
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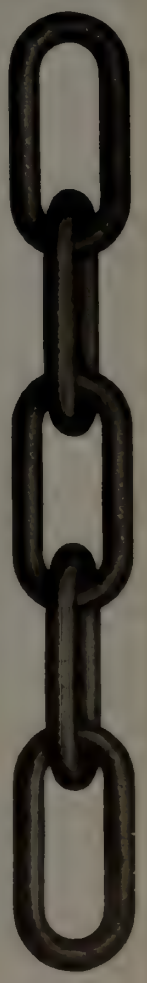
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Review of Current Trade Conditions

Ontario.

At this time of year there is never anything much to say in connection with the lumber trade in Ontario, as the buying season is very largely a thing of the past, and such trade as is in progress is of a small nature. In spite of this, however, there is a very fair volume of trade going on to-day, and, unlike the business of other years, the trade this year is at exceptionally strong prices, which show signs of becoming gradually stronger. It is usual for prices at the beginning of the year to show some softening on account of the smallness of the demand. This year, however, there is a moderate demand for general manufacturing purposes, including quite a good demand for shell boxes and for furniture, while the available stocks are so light that there is no possibility of prices doing anything except harden between now and when the stock produced during 1917 comes on the market.

During the past year the country trade, from a retailer's point of view, has improved steadily, developing from an exceedingly quiet business in the early months into quite a regular demand in the early fall.. Farmers have done pretty well during the past twelve months, and have spent a good deal of money upon lumber. The general public, moreover, has been more of a consuming factor in the market than is usual, as wages have been high and everyone has been able to find employment. The agricultural implement trade has also been good, and has been responsible for much of the improved demand.

Stock-taking on the part of the retailers has shown that the quantity of lumber in the yards is small, and cannot be replaced at the figures for which it was purchased. Wholesalers to-day report that they are doing a fair business, that they have had a good year's trade, and that they are looking forward to a steady demand. The only troublesome feature to-day, as it has been for some time past, is the scarcity of stocks in manufacturers' hands; and there is no reasonable expectation of this situation showing improvement, as the shortage will become more pronounced between now and the appearance of new stocks. With a good demand in the spring, which seems to be assured, and with the comparatively small amount of logs being taken out of the woods this winter, the outlook is for continued scarcity of stocks and firm prices. Hardwoods continue to show strength, although naturally at this time of year the volume of trade is rather restricted. There is a good demand, however, for everything in sight, and prices are firm.

Eastern Canada.

Montreal trade is quiet, as is usual at this time of year, but it is a little more active than it was a year ago. Retailers who have completed their stock-taking are fairly well satisfied with their 1916 business. Some wholesalers also report that they did well. The extensive shell box industry was responsible for a good deal of the activity during 1916. Additional orders have recently been given out for 9.2, 6 in. and 8 in. boxes, and a number of factories have resumed operations. Montreal wholesalers are receiving many enquiries from Ontario, as a result of the scarcity of stocks in the latter province. The increased demand for British Columbia fir which developed during 1916 promises to be even more marked during the present year. Building activity during 1916 was nearly as good as during 1915, if one leaves out of consideration the extensive amount of work done upon the harbor.

Trade in spruce at Boston has been rather quiet, but prices are firm at $32 base for all frame orders. Although retailers have been busy with their stock-taking, there has been a fair amount of buying, and more activity is expected in the near future. Manufacturers are predicting higher prices. Present prices for random are 2 x 3, $26; 2 x 4, $27; 2 x 6 and 2 x 7, $26; 2 x 8, $30 to $31; 2 x 10, $31.50 to $33; 2 x 12, $32 to $34. Hemlock at Boston continues strong. Hardwoods also are doing well. First and seconds inch maple are bringing $47, and in some cases a little more. Inch sap birch, first and seconds, is selling at $52. Further advances in hardwood prices are expected. Basswood first and seconds inch are selling at from $45 to $48. The Boston shingle market is firm, but buying is not quite so active. White cedar extras are quoted at $4 and clears at $3.65. Higher prices are expected before long. The lath market is steady 1⅝ in. selling at $4.75 to $4.85 and 1½ in. at $3.90 to $4.

United States.

A number of factors have been combining in connection with United States trade to put the brakes on to some extent, though they have not actually created anything in the nature of quietness. In the first place, the peace note issued by Germany brought the attention of the industrial and trade world up sharply to an appreciation of the fact that extensive purchases for future requirements are not as safe as they were a short time ago. As a result this line of business is being entered into with greater caution. In addition to this, there have been a number of other elements tending towards similar results, such as car shortage, inventory taking, annual settlements of accounts, etc. From the producer's point of view the lumber trade appears to be on a satisfactory basis. Producers are, in fact, more concerned about filling orders on hand than about obtaining new business. Figures recently issued by the Department of Agriculture show that the value of food crops produced in the United States last year broke all previous records, being $7,641,609,000, which is an increase of $1,750,000,000 over the value of the crops in 1915. The farming classes, therefore, are unquestionably in an excellent position for spending money. Railroad earnings during 1916 were also the greatest in history, the net earnings being $1,097,982,038, which is an estimated figure based upon those for the first nine months. Therefore it is reasonable to expect continued purchases of car material, railroad construction material, etc.

The car situation has been improved recently to an extent sufficient to allow Southern pine manufacturers to increase their deliveries considerably. The market for Southern pine continues strong, and advances are reported in some cases. Order files at Southern mills are well filled. Relief has also been experienced in connection with the car situation on the Pacific Coast, but even yet the quantity of cars available is far from satisfactory. Operations are being resumed at many of the mills. Latest reports show that orders for Douglas fir are exceeding shipments by a substantial amount and are almost equal to the normal production. Good business is reported from the Northern mills. There is a strong demand for white pine at good prices, and hemlock also continues strong. Any dry stocks available are bringing the market price promptly, a situation which will probably continue so long as the price of yellow pine holds up. The hardwood trade continues active. During 1916 hardwood manufacturers enjoyed excellent trade in practically all lines, and the indications are that this condition will prevail during 1917.

At Buffalo the demand for white pine is normal for this time of year. There was a certain amount of slowing up on account of the inventory-taking season, but prices are satisfactory. Stocks in some lines are quite broken, and there have been a few price advances recently. Fairly large receipts by rail are expected during the rest of the winter. At North Tonawanda the demand for white pine is strong, and stocks are more broken than usual at this time of year. Dealers who are looking over stocks find that the output at the mills has been considerably curtailed, and that a decided shortage is probable.

Great Britain.

Latest reports from Great Britain indicate that nothing has yet been done in the way of contracting for 1917 Canadian goods, but that higher prices are expected. What the advances will be is a difficult matter to estimate, as a great deal depends upon the freights prevailing in the spruce business. Before much business can be done the freight level will have to be ascertained more definitely. At London, Canadian woods, white pine, red pine, and spruce are steadily advancing in price. Even with moderately heavy arrivals of spruce this winter the demand will be sufficient to absorb everything that comes forward.

The volume of business at Liverpool is light, but stocks seem to be continually decreasing. Apparently merchants now realize that every stick they sell can only be replaced at a premium. Importations are decreasing each week, and there does not appear to be much likelihood of improvement. Spruce is very firm, and all the signs are for further improvement. A great proportion of the stocks held in merchants' yards are already sold. White pine stocks are strongly held and are very low in quantity. On account of the labor scarcity in Canada it is likely that white pine prices at Liverpool will advance considerably for 1917 goods, and that the volume of imports will be small. Over £60 per standard is now asked for 3 x 11 in. deals, first quality, and thirds are quoted at about £42. Even at these figures, however, pine appears to be relatively cheap compared with many other soft woods. The timber trade at Manchester is quiet. Prices all around continue to stiffen. Spruce sales are reported on a basis of £32 for scantlings, and up to £41 has been asked for 3 x 11 in.

According to a report received at the headquarters of the Southern Pine Association, a secret organization has been formed in England composed of importers and buyers, with the object of controlling imports and prices on all materials, after the cessation of hostilities.

View of Mills in Sarnia.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Mills Selling Ahead for United Kingdom

St. John, N.B., January 7.—(Special to the Canada Lumberman.)—The last month has seen no change in the foreign markets detrimental to the trade. Prices, if anything, have stiffened. Stocks of deals at St. John are fast disappearing. Almost all deals that were held on scows have been cleaned up, and the shippers are beginning to clear stocks from mills. Liner space is more or less uncertain in many cases, deals only being taken on at the last moment to fill up space left after other cargo is aboard. Munitions and foodstuffs for the war zone take precedence.

All the mills at St. John are now idle, and will remain so until early spring. No prices can be put upon deals at present, as all stocks are in the hands of the different English houses at St. John. A certain amount of rotary deals are now beginning to come forward, but as there has been practically no snow for hauling from mills to track, the qualities will not be heavy for some time.

Spruce boards have all been bought up at prices before unheard of, viz., about $20 per M. at mills. Two inch for the American market is very firm, and these stocks have also been purchased, short and narrow specifications bringing around $20 per M. f.o.b. cars. For long specifications, with a large percentage of 2 x 8 in. and up $25 to $26 per M. is being paid. The Boston market is in an abnormal condition, $32 being the base price, with very little stock to offer at the mills.

The question of where stocks for the American spruce market will come from in 1917 is a conundrum, so far as New Brunswick is concerned. With the high offers for deals for European markets it is an assured fact that nearly all the mills will ship deals, as they can be sawn more cheaply than two-inch, and there is less work than sawing for the American market. Many mills to-day have sold ahead for 1917 to send their product foreign. Many buyers from the United States are in Canada at the present time, trying to find stocks suitable for their market, but with no great success.

The logging season to date has been only a fair one. In many sections labor is extremely scarce, and the quantity of logs cut and yarded to date is not up to the average, while in other sections labor is more plentiful and cutting is up to normal; but it is an admitted fact that the quantity of logs cut so far is not up to previous years. It goes without saying that unless conditions change the log supplies will fall short of requirements.

Locally business in house building and factory work is at a standstill, and factories are on short time and making up stock for future use upon which they will not be able to realize for some time. Should the war continue another year, this line of trade will be very hardly hit, and factories will be forced to close up or run at a loss.

Quebec Wholesalers Receiving Many Enquiries from Ontario

Montreal, January 10th.—(Special to the Canada Lumberman.)—Naturally at this period of the year trade is not particularly brisk, but it is better than at the corresponding time last year, and on the whole there is no cause for complaint. Lumbermen who have taken inventories express satisfaction with the past year's business, and one wholesaler stated that 1916 was the best year in their existence. While this may not be general, it is evidence that, despite slow building operations for the greater part of the year, lumbermen were able to find profitable outlets for their goods. The shell box industry is no doubt accountable for the revival. The Imperial Munitions Board have given out further orders for 9.2, 6 in. and 8 in. boxes, and factories have again resumed operations. It is explained that the reason for the recent instructions to delay deliveries was that boxes were accumulating owing to the difficulty of shipping them to the filling plants on account of car shortage.

Wholesalers continue to receive many enquiries from Ontario and also from points in Quebec. As showing the sarcity of stock, a lumberman in the Eastern Townships stated that he had never experienced such a shortage of lumber in that district, and that many of the mills there are almost cleaned out of stock.

The past year has shown a large increase in the demand for British Columbia fir, and the trade is still keeping up.

The building returns are now complete, and disclose little alteration form those of 1915. The total was $5,334,184, as compared with $7,486,221, but as $2,000,000 of harbor works was included in the figure for 1915, and as during 1916 there was practically no building done at the harbor, the real decrease for the latter year was $152,037, disregarding harbor work in both years, and counting only building for which permits must be taken out.

Practically no change has occurred in the pulp and paper situation. While shipments of sulphite to the United States from Europe have lately increased, owing to efforts to get it away before the closing of the Baltic, the demand is so large that no effect on prices is likely. The market continues very firm, ground wood being also in the same condition. The Chicoutimi Pulp Company have given out large contracts for electrical equipment both for their own company and also for the Ha! Ha! Bay Sulphite Company's new mill.

New York Prices Firm

Simpson, Clapp & Company, New York, report under recent date as follows:—The inventory season being at hand many of the retail yards are taking stock, and, quite naturally, are not in the market for new material until inventories are completed. Nevertheless, prices are firm with an upward tendency, due in part to a scarcity of supplies, as well as bad transportation conditions, both rail and water. Vessel shipments from Maine and the Maritime Provinces are about completed for the season, and with an embargo on all rail shipments for New York Lighterage Limits, offerings from these sources of supply have been light. We therefore note no change in market quotations. Few vessel arrivals of spruce lath are reported and $4.25 is being asked for full 1½ inch and 10 to 15 cents per M. less for scant width.

Decreased Imports of Timber into China

The returns of trade for 1915 show a remarkable falling off in the imports of softwood timber into Chinese ports in that year, the total of 89,000,000 square feet being the smallest of any year since 1905, with the one exception of 1912. The following figures are illustrative of the large volume of imports of softwood timber into China, and the manner in which the trade has kept up for many years:—

	Square Feet.
1905	90,000,000
1906	150,000,000
1907	220,000,000
1908	130,000,000
1909	95,000,000
1910	137,000,000
1911	98,000,000
1912	78,000,000
1913	166,000,000
1914	204,000,000
1915	89,000,000

The causes underlying the lessened imports are twofold: first, the general hard times in China consequent upon its inability to procure funds for government and other public works, and second, the greatly enhanced cost of timber caused by the shortage of shipping space and high cost of freights.

Railway sleepers also declined by 1,300,000 pieces in 1915, the figures being for 1914, 2,933,877, and for 1915, 1,694,260.

It is gratifying, however, to be able to report that Canada furnished more timber to China in the lean year of 1915 than in any other year since 1907. These are the figures:—

Imports from Canada—	Square Feet.
1905	51,747
1906	None.
1907	3,392,162
1908	1,710,873
1909	50,926
1910	None.
1911	18,090
1912	5,400
1913	None.
1914	129,915
1915	2,841,615

It is notable that the value of the smaller imports in 1915 was considerably in excess of the greater quantity furnished in 1907. From the above figures the reasonable inference should be drawn that if we were able to furnish some of the demand of this market in a year such as that of 1915, we should be able to do so in any year. Another feature of the timber trade has been the recent arrival in Shanghai of four sailing schooners, timber laden. These schooners cleared from Port Blakely. Three of them carried each 900,000 square feet of Oregon pine lumber, and the fourth about 1,000,000 square feet.

What They Say

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A Good Time to Change Your Credit Systems

It is a safe prediction, I think, to say that the close of the year found a larger volume of accounts on the books of the average retailer than at the same time for many years past. I think, however, this will apply more particularly to the individual dealers than to the line yard managers, who have not the same freedom of action regarding selling on time and collections, as the dealer has who can do as he pleases. I have an idea, though, that there are some individual dealers for whom it would be a good thing if they had some authoritative power that would keep after them and make them put more business into their business than they do in the matter of their credits and collections.

The average business man does not voluntarily do those things in his business which he does not feel a necessity for doing. I have known individual dealers to go to the bank and borrow money to meet the payment of a bill for stock, rather than go out to collect it out of the thousands of dollars of accounts on their books, and if you are one of such dealers you will know the inside reasons that governed your action. Most of the line yard concerns nowadays have adopted a systematized policy governing their credits and collections and their yard managers are required to carry it out in as strict a manner as possible. If a manager does not enforce it in a satisfactory manner, it has got to be a good reason that will excuse him. In this respect it might be said that a yard manager of one of these concerns has an advantage in making collections that the individual dealer has not, for he can go to a man and tell him that he has positive orders to collect his account and suggest that he act accordingly. Whereas, a dealer who is running his own yard has no such backing to enforce a request of this kind. The party owing the account, too, does not put the blame on the manager because he knows he is only an agent of the company that is forcing him to carry out its order. But on the other hand, if the other dealer presses him, he is dealing direct with first hand responsibility, and if he don't want to pay it at the time, he has a better chance of dickering for further time. You know how it is if a good old friend of yours wants to hold his grain for a while longer for the market advance he thinks will come and asks for further time. Now, if you are not actually needing the money you know you are not going to tell the old fellow that such a reason will not serve the purpose, and you've got to have the money. It is hard in such cases to turn a man down, for friendship is to an individual dealer the chief basis of his trade, especially if he is in competition with a line yard concern. The average farmer does not like to be crowded at any time to pay his account and other things being equal he prefers for this reason to trade with the dealer who is more elastic in his ways about collecting.

Friendship Sometimes a Handicap

While friendship is a good thing to have in business it is also more or less of a handicap. It is a great factor in bringing us trade and helping us to hold it, but when it comes to collecting accounts it takes the punch out of our efforts, for our friends usually take such efforts as a personal instead of a business matter. Very few farmers there are who trade with a dealer for purely business reasons. They give him their business because they like him in a personal way. They cannot understand the cold blooded policy of holding a friend up to dealing according to strict business methods. It is, in their estimation, like going back on a friend to take his unsolicited trade and then press him to pay his account. Of course, we know that the attitude of the farmer in this respect is a mistaken one, and therefore it should be the constant effort of the lumberman to educate the younger generation of farmers to view the matter in its right light. The older farmers will remain the same in thinking as they do about it, but it is up to the younger dealers to make it a point to educate the young farmers to deal in business matters according to strict business principles.

The average intelligence of the farmers regarding business matters is higher than it used to be. The mail order system of buying, and the purchasing of automobiles are responsible a good deal for this. Heretofore they have had only the bank to insist on paying an account when due, but with them the bank was not considered as a buying and selling business such as a store or lumber yard. But now they have discovered that there are business concerns who do business on the policy of paying cash on or before delivery of the goods, and with whom friendship does not count and trusting is out of the question. They know when dealing with a mail order house they have no show to "dicker" as they have with the old friend at the lumber yard who is as responsible as they are for the lack of good business methods.

Apologies Are Not in Order

One of the common habits of country lumber dealers when making a move for collecting accounts is to make excuses to their debtors for sending them statements or asking personally for payment of the account. These excuses vary in form according to the person or circumstances, but they are usually something like this: "We are needing the money to pay for more stock." "Say, Jim, I've got some freight bills to pay and I need some money," or "I wouldn't bother you at this time but I got a letter from the company telling me to send in a remittance and I've got to send it." Then the farmer, or whoever he is, will be apt to make his excuses too and so, likely as not, a compromise payment will be made and the balance of the account will be deferred till some time in the future, when the same process of "bunk" excuses will be gone through to extract money from those who either haven't got it at the time, or, having it, want to use it for themselves. As I say, we have gotten into the habit of assuming an attitude of pleading for money we have distributed among our customers and making all sorts of excuses to strengthen our plea for our own that is in the possession of others. We are in the habit of coddling the farmers and the contractors and influencing them to believe that we are dependent on them for our daily bread when we pass them out our money in the form of stock with faith and hope that they will return it. Then when we want it before it suits their convenience to come in and pay we assume the attitude of suppliants and coax, wheedle and beg the most influential and well-to-do of our debtors to help us out in our shortages. We are more bold, however, with the opposite class of those who owe us. We are not afraid to "talk turkey" to them and let them know that we are stern, uncompromising creditors who will accept no excuses, but must have our money or there will be something doing unpleasant for them.

How cowardly we are in asking for our own money. "I'd as lief take a licking as to go out and ask that fellow for money," is an expression that has often been made, or at least felt. Probably you have got several of this class on your books who get mad and try to bluff and browbeat you when you get them cornered and ask them to settle that account. You have your stock in trade, and this demeanor and "front" that they put on is their stock in trade, and one of their ways of getting a living. When I was a young manager this class of "bluffers" used to scare me out from trying to dun them, and I lost several accounts from this class till time and experience had hardened me so that the "bluffing" game had little effect on my persistence. I have known dealers who told me that when they got "good and mad" they could go out and collect the money and make the fur fly if necessary to get it, but they had no stomach for the job when in their usual frame of mind. This is the class of businessmen who make it possible for collection agents to make a living. They would rather pay somebody to do their collecting for them than to "face the music" themselves. This is not reflecting on their ability as business men, for I have known many who were successful and all that, but were failures as personal collectors of their own money. Some men, you know, can get, as the saying is, "blood out of a turnip" but others have hard work to get it from those who have plenty to pay with, and then only by putting up a poor mouth and begging for it. If the nature and character of the retail lumber business was not what it is there would have been hundreds of retailers in the past that never would have survived, because they were in the same class as business men in other lines who failed and went under because of too many outstanding accounts and being poor collectors themselves. It is rarely you see a country storekeeper failing in business who is a good collector, and yet we are told that not over ten per cent. of business men in these lines are successful as merchants. Retail lumbermen who carry more on their books than the average amount of stock in their yards, have reason to thank the

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business they are in for keeping going as they do. No other line of merchandising would stand it for very long.

Time to Make a Change

Now it seems to me that it is up to every dealer to effect a change in his mind and attitude regarding the collection of his accounts, and get rid of the old idea of asking as a favor the return of the money that has been put out as a matter of business. There is no thought of doing a man a favor when he hauls a load of lumber out of the yard and time is allowed in which to pay for it. No, the lumber is sold and the time given purely as a matter of business. In reality, the customer regards it as doing the dealer a favor in trading with him. Then, why in the name of common sense should the dealer get down—so to speak—on his marrow bones and ask, as a favor, the payment of the account when he wants the money. It's an old, old story, this depending on the good will and favor of those who owe book accounts to "help us out" when needing the money, or at the general round-up of business at the end of the year, and it will be older still, if retail lumbermen continue to have a backward feeling about asking for what is due them. There is little sense in complaining about the slowness of collections when we ourselves are encouraging farmers and others in the belief that if they do their trading with us, we are under obligations to allow them their own option as to when they shall pay the account.

There is no good reason why the farmer and contractor should not be dealt with in their trading with us on the same business principles as we ourselves have to follow when dealing with business concerns with whom we have business relations. These concerns give us credit on our purchases, but they fix the time at which we shall pay the account. It is not a question with them as to whether we are "good" for it or not. If we were not, we would not have gotten the goods in the first place. But it's simply a matter of business equity and safety with them to regulate and limit their credits. In fact, they make this requirement as a part of the sale contract. These business rules are so long established, and we have become so accustomed to them that we take them as a matter of course and make our calculations for meeting the terms accordingly. They solicit our business, it is true, just as we solicit the trade of the farmer and contractor, but it is with the implied understanding that we will submit and conform to their terms of payment, and when we send in our orders we know what to expect in the matter of paying for them. Now, then, if we have become educated to conform to established business rules in our dealings with those we buy from, why is it not possible for us to make suitable rules governing credits and payments and insist on their being recognized and conformed to by those we sell to? Of course, I know it is easy enough to formulate and lay down a set of rules of this character, but, as we all recognize, the crux of the whole thing is to carry them out and insist on our trade observing them. So, therefore, it rests wholly with our own option and will to do what we know is the right thing to do.

Difficult at the Start

The first stages of such a change as this are always the most difficult. People don't like to be deprived of privileges that have long been established by custom, and therefore it will take at least a year of insisting on the new terms being followed before the trade will become educated to know and realize that they will have to be accepted as an established fact in doing business at the lumber yard. Farmers and other people can be trained to do business with the lumber dealer in the matter of selling terms and payments, as the banker has trained them in dealing with him. It's all a matter of educating the public to conform to the change, and stiffening one's own backbone in enforcing its observance.

I am aware, however, of the fact of there being many dealers who have a shrinking from making such a radical change in their customary way of dealing with their credits. They feel that they have gotten along pretty well with the old method and are averse to making any changes. Some there are, too, who would gladly do it, but they know they lack the strength of will and persistence to carry it through. They haven't the confidence in themselves to do what they know they should do. If their competitor would start in to make the change they would welcome it and gladly follow his example. There are others, too—and their numbers are growing—who have worked out their purpose and plans and have taken the plunge in the waters of a new deal in their credit system. It is no longer an experiment with them. It works so satisfactorily to them that they can say to all their fellow dealers, "Come on in; the water's fine."

I was talking with one of these "pioneers" last summer on this subject, and he said he would no more go back to the old system than he would try to do without the telephone or taking a trade paper. He further said that you are giving the cash customer a square deal?" So, you may depend on it that the governing of credits and collections according to strict business principles by retail lumbermen is no longer an experiment or an impossible thing to do, as some weak-kneed dealers have persuaded themselves to believe.

We are not living as we should unless we make each year an improvement on the one that is past. If we do not better our business ways in every succeeding year, we soon get into a rut, and, without progress in improvement, a business rut becomes a grave. I sincerely trust you will ponder over what I have said on this subject, and let it influence you to determine that a change shall be made in your old credit and collection system. The first of the year is a propituous time for putting into effect a matter of this kind. Take the public into your confidence and tell people what you are going to do and the reasons for doing it. Then go ahead and back your own judgment.—C. H. Ketridge, in the Mississippi Valley Lumberman.

Need for Co-operation Between the Manufacturer and Sales Department

By George C. Robson

If we should ask the average manufacturer if his sales and manufacturing department were co-operating, we believe he would answer, "We think so," but ask the average sales-manager or mill superintendent this same question and the answer, undoubtedly, would be, "Not as much as they should."

If any two departments in any business should work together to produce results, it is the sales and manufacturing departments, and in many ways this applies more to the lumber business today than ever before, and more so than in many other lines of business.

The sales-manager does not believe there is an intentional lack of co-operation between these departments, but rather a lack of understanding or knowledge of the other department's operations.

How many sales-managers have a proper knowledge of the manufacturing end of the business and how many of the men directly responsible for the proper manufacture of lumber have any knowledge of the work of the sales department or the respective values of the different grades or kinds of lumber he produces and how it is sold on the market?

In the days gone by, when practically all lumber was sold as log run, it did not matter so much to the sales manager or the mill department if a few thousand feet, more or less, were lowered in grade by not being properly manufactured, for was it not true that it all brought the same price?

The condition today, when the bulk of the lumber produced is sold on grade to fit the market's requirements, makes it necessary that not only the sales department, but the entire manufacturing and shipping organization must realize and know the value of each grade in order to give results to their employers.

The manufacturer, who expects quality produced, must realize that, to some extent, it will affect quantity, but he should figure out for himself whether quality or quantity is the best paying proposition. Before he can perfect a manufacturing organization that will produce both, he must educate them and let them know something of what it means to him to get both results.

The soft wood problems, both in the manufacturing and sales departments, are on a much higher scale of efficiency than are the hard woods and for this reason the hardwood question will be considered more seriously than the soft woods.

Is there a manufacturer today who is satisfied his mill department is producing the maximum amount of better grades in the hardwoods, or is satisfied that he is getting the full money value in lumber from the sawing of his logs?

Is there one who is thoroughly satisfied with the present manner in which he markets his hardwood products? There is, of course, a remedy, and we believe this remedy is in the hands of the employer fully as much or more than in the sales or manufacturing departments. When the remedy is found, these departments must co-operate to work it out.

We urge that the sales and manufacturing departments each study the problems of the other, that the sales managers familiarize them-

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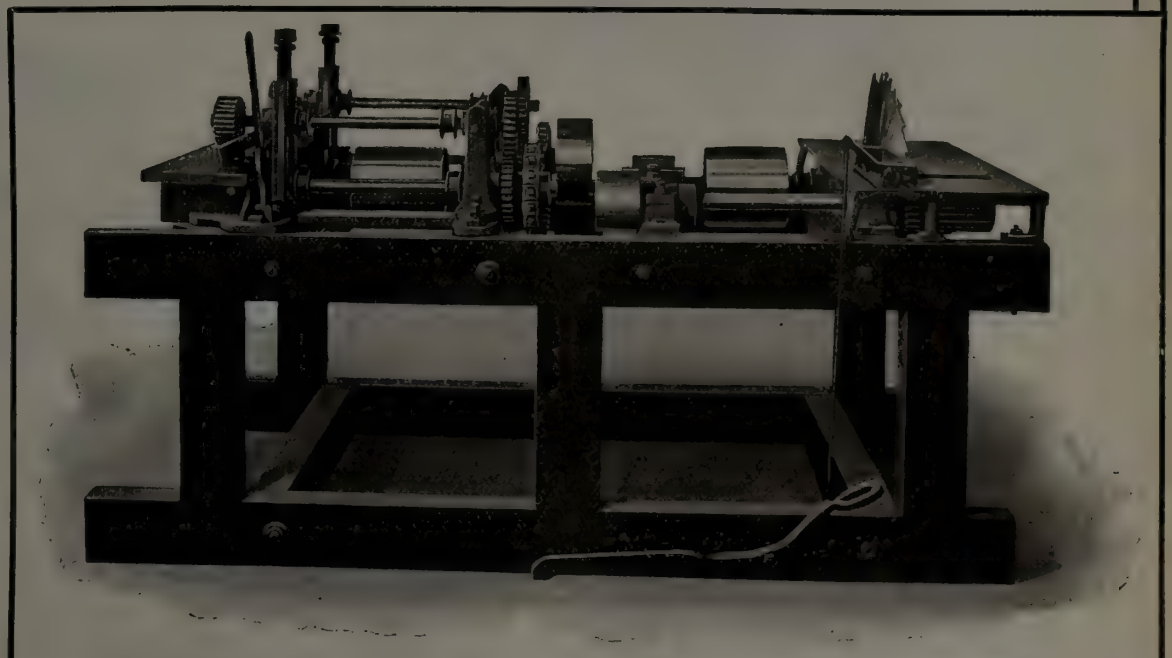

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selves with the market's requirements, so they can intelligently advise the manufacturing department, and when the mill department understands some of the principal essentials of the sales department, they will produce the quality that will enable the sales department to make a much better showing.

We believe each manufacturer could well take his mill superintendent, head sawyer, edgerman and trimmerman, yard foreman and graders into his confidence to the extent of possibly holding meetings frequently, talking over the various subjects in connection with the proper manufacturing of lumber, advise them of the respective values of the different grades, make a study of the grading rules and impress on them the necessity of their becoming students of the manufacturing game and in this way the manufacturer, his sales managers and employees will find much enlightenment and more interest in the manufacture of lumber.

The up-to-date manufacturer of today is endeavoring to manufacture his lumber with the expectation of shipping it to meet the requirements of the market and in determining how he will manufacture his timber, he must first consider the quality of his logs. If the logs are of good quality, he should think of the results on the balance of his stock before he attempts to saw much thick lumber.

After it has been definitely determined as to the thickness of lumber to be sawn, the sales department is entitled to and should insist that the lumber be as well manufactured as is possible and practicable and endeavor to see that the logs are sawn to the best advantage, that the lumber is properly trimmed and edged and the thicknesses are as uniform as it is possible to manufacture them.

Mis-manufactured lumber, undoubtedly, causes the sales department more trouble than any one thing they have to contend with, for it not only takes valuable time in straightening out complaints, but it is usually necessary for them to sell such an article for considerable below the market value.

Next to the proper manufacturing of lumber comes the importance of sorting the lumber to the best advantage in accordance with the manner in which it is to be sold.

Most of the mills have already overcome sorting difficulties with reference to their soft woods, but the sorting of hardwoods for the market has been largely neglected by most of the mills, as a careful investigation shows that most of the mills still continue to pile their hardwood No. 2 Common and Better.

We believe this, to a more or less extent, is necessary on account of the majority of the mills not having a sufficient amount of room on their sorting works to enable them to sort the many different kinds of wood they manufacture to advantage and as a result a very heavy additional expense results when the lumber is shipped, on account of so much additional sorting and handling in the yard.

A mill well equipped with sufficient sorting room can, with practically no additional expense, sort its lumber so as to eliminate a large portion of the cost, now chargeable to the loading of hardwood lumber, which we all know is high in proportion to the loading cost of the soft woods.

I believe you will bear me out in the statement that in the average yard the cost of inspecting and loading hardwood lumber is, on the average, considerably in excess of $1 per M. where the lumber is piled No. 2 Common and Better, while a soft wood yard, where the lumber is sorted, can be handled for less than one-half of the cost of handling hardwood in the same yard.

Not only can you materially reduce the cost of loading your hardwood, by proper sorting at the mill, but you have the additional advantage of having your lumber sorted ready for the market, can give your trade what it requires promptly, and without the necessity of the additional heavy expense of sorting and stacking down in an attempt to get out any particular grade, and you likewise will eliminate the depreciation that results from stacking lumber for any length of time.

We do not suggest that this sorting at the mill be done to excess, but we do believe that every mill can do a much better job of sorting than is being done at the present time, and we likewise believe that every manufacturer, who is producing hardwoods, can well give serious consideration to his present sorting capacity and the manner in which he separates and piles his lumber.

The piling of lumber is fully as essential as proper manufacturing, The foundations for pile bottoms should be made solid with good pitch and well up from the ground to allow a free circulation of air under the piles. In piling the lumber, plenty of pitch from the bottom to the top of the pile should be allowed and proper chimneys of good widths should be placed in the centre of the pile to allow circulation of air from the bottom to the top of the pile. Narrow crossing strips should always be used, especially in hardwoods, and care should be used to see that these crossings are placed directly above the foundation timbers. This will eliminate a great deal of warped and crooked lumber caused by improper piling.

In the piling of better grades, it has been found very profitable to use "4" hemlock strips, either green or dry, to help eliminate the chances of discolorations. Stain, undoubtedly, causes the lowering of grades in lumber more than any other feature in connection with air-drying stock, and great care should be used to see that the lumber is piled to avoid this feature.

Different kinds of lumber require different spacing to dry properly to the best advantage, while the season of the year in which it is sawed makes considerable difference in the amount of spacing that is used.

Lumber should be properly roofed with plenty of extra pitch as soon as the pile is completed. If the same is piled 12 feet and shorter together the same should be covered with 16-foot lumber as wide widths as can be obtained conveniently, while 14 and 16-foot piles or 16-foot square piles should be covered with a double length roof and in either event the roof should extend at least 18 inches over the front of the pile and about 2½ inches of the back of the pile. Care should be used to see that the cracks in the bottom course of roofing are well battened with boards 6 inches or wider, as it is a mistake to use 4-inch strips for roofing purposes.

Each pile cover should have three crossing strips on the top, securely tied down at the ends with twine to hold the roofing in place against winds, which would otherwise disturb them.

If proper pitch is not allowed in the pile bottom it should be made in piling. Good lumber should not be used for risers in making this pitch as the lumber will stain and lower in grade, but rather use a low grade for this purpose as well as for roofing beds.

Lumber that is piled as above, either 12 ft. and shorter together on three foundations, 10 feet from front to back, and 14 feet and 16 feet together with three foundations, 14 feet from front to back, or in box piles on four foundations—4 feet apart so all lengths will rest on a crossing, and if piled with a pitch of 1 inch to the foot and carried forward in front in the process of piling at the rate of about 1½ inches to the foot will stand the work of the elements without deterioration, for a considerable length of time and will come from the pile free from crossing stains, serious checking and other defects caused by improper piling.

It has been found advisable in many places to cover all hardwood and pine lumber of the grade of No. 2 Common and Better with No. 3 and No. 4 common hardwood.

A little care used by the piling crew will result in this low grade lumber coming off the piles with very little depreciation, while if better grades are used for pile covers, there is sure to be depreciation in value.

Plenty of space should be used between the piles and also behind the piles to allow a free air clearance throughout the yard.

The grading of lumber is a very important feature and as much of it should be done at the sawmill as is possible. If the manufacturing organization does its part properly and the same is properly graded before it leaves the sawmill, the work of the inspectors in the dry yard will be reduced to a minimum and the amount of outs to re-handle will be small.

This careful inspection and sorting at the sawmill will likewise insure a much better grading of dry lumber and the amount the inspectors can handle will increase materially.

The sales department can likewise handle its sales to better advantage on account of knowing approximately what it has to offer on the market, and it can thereby take full advantage of the best markets in making its sales.

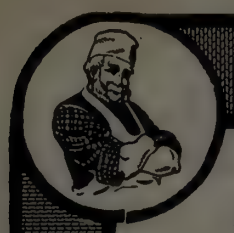
The loading of lumber, while it may seem unimportant, and frequently is very carelessly done, is one of the important features with a sales department. Lumber should be properly loaded, with the ends and sides evenly piled, with short stock mixed with the longer lengths throughout the car rather than piled in the door or all together in one portion of the car. In loading gondolas, or box cars, care should be used to see that the best appearing lumber is placed where it will be seen first. This applies principally to waney edge stock.

The first appearance of a car oftentimes has much to do with the satisfaction it will give the customer and likewise a bad appearance will cause suspicion and investigation, even though the quality of the stock may be strictly up to grade.

The principle of "putting the best apple on top of the barrel" applies just as much with the lumberman as it does with the apple packer.

Planing-mill work should always be done in a high class manner. Poor planing-mill work is the cause of as much trouble in the sales department as poor grades. The planing-mill foreman should see that his knives are kept in proper shape to do smooth, high class work, and particularly to see that matching and similar work is done in such a way that it will fit properly for the purpose intended and present a high class appearance. A few pieces of lumber improperly milled oftentimes causes serious complaints, while a little care and watchfulness at the planing-mill will eliminate this trouble and save the manufacturer considerable loss and give satisfaction to his customers.

In closing, we desire to make the following suggestion: That the sales department and the manufacturing end of the business get together in a spirit of co-operation, make a study of the efficiency in



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The best economy in the world is to buy that commodity which, being good, is the cheapest value on the market. This simply means, when choosing flour, don't be altogether influenced by price, but get a wholesome, nourishing, uniform product that will bake up into appetizing food. That is why we recommend for your camp

Cream of the West Flour

The Hard Wheat Flour that is guaranteed for Bread

For years this flour has been held up as an excellent example of the "pure food" idea, and we are jealous in guarding that reputation. Your men will readily respond to your efforts in giving them good food with more work and cheerful dispositions, which means a big money saving to you.

Our horse feed is distinctly good. Bullrush Crushed Oats (best grade Western oats) and Geneva Feed (crushed oats and cracked corn) are both worthy of attention for your stable.

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HALIFAX—C. E. Chote & Co.
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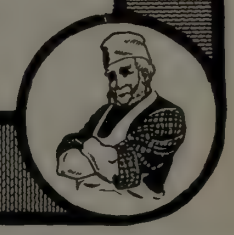

Jenckes Boilers

We make a Specialty of

Horizontal Tubular Boilers

for Saw Mill work. They are made in an extensive plant built and equipped for the purpose with all modern appliances.

The three prime elements of Design, Material and Workmanship receive equal and most painstaking attention, ensuring a boiler warranted to give perfect satisfaction and long service.

The Jenckes Machine Co., Limited

Sherbrooke Montreal Cobalt So. Porcupine St. Catharines Toronto Vancouver Nelson

manufacturing and endeavor to have their product leave the sawmill manufactured in as near a perfect manner as is possible, and believe the manufacturing department should be taken into the confidence of the sales department so they will know more of values between the various grades of lumber.

We urge that manufacturers endeavor to sort their lumber to better advantage at the sawmill, that much more care be used in the proper piling and roofing and that the shipping department and planing-mill departments use more care in the loading and mill-working of the stock.

We particularly urge that the sales department use more care in endeavoring to dispose of the stock in the manner best suited to fit the stock he has to offer, and in accordance with the manner in which it is piled.

In closing, we ask that a spirit of co-operation be inaugurated between the sales department and all other departments, so that when lumber is loaded on cars, the manufacturer will know his product is in shape to satisfy the customer and give him the best results in money value.

An Important Workmen's Compensation Judgment

In the Court of Review, at Quebec, P.Q., an important judgment was recently given to the effect that the employer of a wood-cutter working in timber shanties comes within the liabilities of the Workmen's Compensation Act. The James Maclaren Company, Ltd., were sued under the act for $2,000 damages by M. Larocque, who sustained an injury to his right eye, as a result of which the eye had to be removed. The company was held liable in the Superior Court, and judgment was given for $1,293. The company appealed to the Court of Review, with the result that the judgment of the Superior Court was confirmed.

Some 250,000 feet of timber and lumber were lost recently from a scow which was conveying it from the plant of the Canadian Western Lumber Company at Fraser Mills, B. C., to Ocean Falls, B. C., where it was to be used in the construction of the pulp plant and houses and shops for the Ocean Falls Company.

The lumbering and driving operations on the Miramichi River, N.B., are expected to be about the same this winter as last winter. More than 2,000 men are now in the woods cutting and hauling logs.

U.S. Lumberman's Son Gets Into Khaki

Lieutenant M. Stephenson, son of Senator Isaac Stephenson, of Wells, Mich., and Marinette, Wis., is attending a Canadian Military Officers' school, to qualify as a captain, and has offered to equip a whole battalion to go over seas with the Canadian expeditionary force. Lieutenant Stephenson resigned command of the U. S. S. warship Yantic to take the Canadian commission. Readers of the Canada Lumberman will recall a couple of very interesting articles published in our columns of late, regarding Sen. Isaac Stephenson's early experiences in logging and lumber manufacturing in New Brunswick.

Lieut. C. G. Power, familiarly known to his friends in many parts of Quebec Province as "Chubby" Power, a son of Mr. William Power, M.P., of W. & J. Sharples Regd., Quebec, P.Q., has been decorated with the military cross. About six months ago Lieut. Power was mentioned in despatches, and the reward is doubtless the result of his bravery on the battlefield.

Recent reports from Newcastle, N. B., state that conditions in the woods on St. Croix waters have been very unfavorable for the lumbermen on account of deep snow coming before the ground was well frozen. The streams and swamps were open and the outlook was not promising. A large output has been planned on St. Croix waters and continued unfavorable weather would be a serious matter.

Investigations by the Forest Products Laboratory, at Madison, Wisconsin, have resulted in the use of spent tanbark in the manufacture of asphalt shingles to the extent of 160 tons per week. The value of the bark has been thereby increased from 60 cents to $2.50 per ton.

Arrangements for the annual meeting of the Canadian Pulp and Paper Association, which will be held in the Ritz-Carlton, Montreal, on Wednesday, January 31st, are going rapidly forward. In addition to the business meetings which will afford the basis for intimate discussion of the affairs of the industry during the past year and for the coming year, luncheon and dinner functions will be held.

Canada's exports of forest products during the twelve months ending November, 1916, were valued as follows: 1916, $54,515,579; 1915, $48,925,230; 1914, $41,954,640.

FOR LUMBERMEN

The Famous Bedford Axes

These axes are specially made for lumbermen and are noted for their ability to hold a keen cutting edge. They are made in curve bit, wedge and half wedge.

We manufacture a complete line of axes, single and double bitted, boys', hunters', bench axes, broad axes and brush hooks. Ask us for prices.

We stand behind every axe made in our factory

The

Bedford Mfg. Co.

Bedford, Que.

Incorporated 1895

Manufacturers of

Axes, Scythes, Rakes, Hoes, Forks, Saws, Etc.

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TRADE MARK

The New Water-proofed Duck, Lasts Indefinitely

Samples Now Ready for Mailing

Horse Covers

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Tents, Awnings

For Every and Any Outdoor Use.

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For Easier Logging

The **Barienger Braking Device** has a very direct bearing on your profitable logging operations this year. Labor is scarce and expensive. Old methods should be eliminated wherever expedient, wherever a saving can be effected. For upland work especially do not overlook the advantages of a **Barienger Brake.**

By the use of a **Barienger Brake** you overcome the necessity of sand or straw hilling. You can bring out heavier loads with perfect safety down very steep grades. No danger to men or horses. Save time by using the shorter route. It is always easy to log in rough country with a **Barienger Brake** handy.

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THE EAGLE LUMBER CO. Limited
WHOLESALE LUMBER
SANS DIEU RIEN
MONTREAL - Canada
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SPRUCE
ROUGH or DRESSED

Saw Mills at
MONT LAURIER, QUE.
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Dressing Mills at
ST. JEROME, QUE.

WHITE PINE

We have remaining for sale a few cars in each of the following items:

5/4 x 6 in. 10/16 ft. Mill Run White Pine
2 x 12 in. 10/16 ft. Mill Run White Pine
2 x 4 and wider sound wormy White Pine
3 x 6 and wider sound wormy White Pine
4 x 6 in. 10/16 ft. sound wormy White Pine
4 x 8 in. 10/16 ft. sound wormy White Pine
4 x 10 in. 10/16 ft. sound wormy White Pine
6 x 6 in. 10/16 ft. sound wormy White Pine
8 x 8 in. 10/16 ft. sound wormy White Pine
4/4 x 10 and 12 in. No. 2 Culls

Also a few cars of No. 1 and 2, 4 ft. White Pine Lath and a few cars of 32 in. Mill Run White Pine Lath.

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LATH

Campbell, MacLaurin Lumber Co.
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Pine, Spruce
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GOOD STOCKS PROMPT SHIPMENTS SATISFACTION

C. A. SPENCER, LIMITED
Wholesale Dealers in Rough and Dressed Lumber. Lath and Shingles
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EDGINGS

Ontario

The Field Lumber Company, Limited, Field, Ont., are building a new sawmill.

Jas. Playfair and D. S. Pratt, Midland, Ont., have taken over the plant of Benson and Bray at Midland, and will manufacture shell boxes and do a transit planing business.

The Keenan Woodenware Manufacturing Company, Limited, Owen Sound, Ont., will proceed with the erection of two buildings, each two storeys, 60 x 120 feet, the town council having passed a by-law on January 1st in this connection.

The Hamilton Lumber and Coal Company, Limited, has obtained an Ontario charter to carry on business, among other things, as manufacturers and dealers in lumber, timber, etc., with head office at Hamilton, Ont., and capital stock of $150,000. The provisional directors include J. G. Gauld, C. V. Langs, and E. G. Binkley.

The Abitibi Power and Paper Company, Limited, Montreal, P.Q., and Iroquois Falls, Ont., report that they will be taking out about 250,000 cords of pulpwood from their limits this winter and that they now have practically a sufficient force in the woods for this amount. Work is in progress on the construction of the addition to the company's pulp and paper mill. When these have been completed the company will commence work upon the construction of two power dams and the erection of a power plant.

Eastern Canada

The Wyatt Lumber Company, Cowansville, P.Q., has been registered. Nelson J. Wyatt is interested in the company.

E. Frigon & Company, lumber dealers, St. Maurice, P.Q., have been registered. Alfred Frigon and D. Poulin are interested in the company.

A new firm under the name of Vincent and Guinard Company, lumber merchants, have been registered to carry on business at St. Alexis des Monts, P.Q. Those interested are M. Vincent and H. Guinard.

La Compagnie Generale de Pulpe, Limitee, has been incorporated with head office at Montreal, P. Q., and capital stock of $49,000, to carry on business as manufacturers of pulpwood, wood pulp, pulp and paper in all their branches. Those interested in the company are J. A. Bigonesse, J. E. Cadotte, A. Courtois, J. Z. Henaud and J. Courtois, all of Montreal.

L. M. Bickford, vice-president of the Nashwask Pulp and Paper Company, which recently took over the plant and business of the Partington Pulp and Paper Company, at St. John, N.B., states that the contemplated improvements to the mill will be commenced as soon as possible. The present output of the plant is sixty tons of bleached sulphite daily and this will be increased to eighty tons.

The Bathurst Lumber Company, Limited, report that good progress is being made in the construction of their pulp mill and that it will be completed and in operation during February. A paper mill will be started in the near future. The company also propose to develop 10,000 h.p. at Grand Falls on the Nepisiguit River. They are now completing a number of employees' houses and contemplate further building operations.

With a view of securing additional power, the Bedford Manufacturing Company, of Bedford, P.Q., are installing a steam plant, to replace their water power. The company manufacture axes, scythes, rakes, hoes and forks in a recently erected, fireproof building, equipped with the best modern machinery. Over one hundred men are employed. The annual capacity of the factory is 2,500 dozen axes and 5,000 dozen scythes. The company cut their own logs, which are converted into lumber of the sizes required, kiln dried, and then manufactured into handles, etc.

Western Canada

The North Canada Lumber Company, Limited, Davis, Sask., have been succeeded by E. A. Graves.

John Menzies and Sons, lumbermen, Oakburn, Man., have sold their business to the Quality Lumber Company.

The Brooks and Bidlake Cedar Company have installed two new shingle machines at their plant at Powell River, B.C.

The lumber business belonging to Wm. Kinna, Maxim, Sask., has been taken over by the McIlwrath Lumber Company.

The Lyons Lumber and Hardware Company, Limited, has been incorporated with head office at Saskatoon, Sask., and capital stock of $20,000.

Fire in the lumber yard of the North Vancouver Lumber and Sash and Door Factory, recently caused about $4,000 damage, chiefly to the machinery.

The Westminster Trust Company, New Westminster, B.C., have sold to Mr. H. G. Howard, a Pennsylvanian, 40,000,000 feet of timber upon berths 23 and 403 on the shore of Pitt Lake near Allen Creek, B.C. Mr. Howard in-

tends to erect a sawmill and to commence logging operations as soon as weather conditions permit.

The mill leased by the Revelstoke Lumber Company at Pingston Creek, B.C., was completely destroyed by fire recently. The damage included 60,000 feet of lumber.

The East Coast Saw Mills, Limited, has been incorporated with head office at Nanaimo, B.C., and capital stock of $250,000, to carry on business as foresters, loggers, timber and lumber merchants, etc.

Reports from Winnipeg state that J. O. McArthur, contractor, is about to commence work on the erection of a large pulp and paper plant near Winnipeg, which will utilize timber along the Winnipeg River.

Cedars Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of $30,000, to carry on business as exporters and dealers in saw-logs, timber, lumber and woods of all kinds.

The Clark Lumber Company, Limited, have been incorporated with head office at Victoria, B.C., and capital stock of $25,000, to carry on business as timber merchants, sawmill proprietors and lumbermen in all or any of its branches.

A report from Spokane, Wash., states that Mr. J. S. Deschamps, Nelson, B.C., has purchased a large quantity of fir and tamarac timber in the Copeland district of Northern Idaho and has already commenced logging operations upon the tract.

The Ship Esquimált Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of $200,000, to carry on business among other things of timber merchants, sawmill and pulp mill proprietors and to deal in saw logs, timber, lumber, etc.

A Vancouver syndicate is reported to have purchased several million feet of growing timber, chiefly first class cedar in the Lynn Valley district. It is stated that they will erect a $40,000 mill on the north shore near North Vancouver and that the plant will be in charge of Mr. C. McMillan.

The city of Prince Rupert, B.C., has offered special power inducements to the Emerson Sawing Company of Vancouver, B.C., which will commence the construction of a mill at Seal Cove, in the near future. Mr. E. F. Duby is representing the company in Prince Rupert and will be in charge of the erection and operation of the mill.

The Union Lumber Company, Limited, has been registered as an extra-provincial company with head office at New Orleans, La., and provincial office at the British North America Bank Building, Vancouver, B.C. R. L. Reid, Vancouver, B.C., is attorney for the company. The capital stock is $150,000. The company will manufacture and deal in lumber, shingles, etc.

The Gordon River Timber Company has been registered as an extra-provincial company with capital stock of $400,000, to carry on business as manufacturers and dealers in timber, lumber, etc., and to operate sawmills, planing mills and logging plants. The head office of the company is at Portland, Me., U.S.A., and the provincial office is at 918 Government Street, Victoria, B.C. H. G. Lawson, Victoria, is attorney for the company.

The shingle mill of the Shull Lumber and Shingle Company, Shull, B.C., has an output of 700,000 shingles in ten hours. The plant is equipped with automatic sprinklers and all the buildings have large fire spaces between them. Shingles are the sole output of the plant. The logs are cut into shingle blocks with an 86½ inch planer tooth cut-off saw. The equipment includes 20 upright shingle machines and there is room for the installation of 4 more. The company produce both American and British Columbia grades in 16 in. and 18 in. shingles. The plant is located on Boundary Road on the North arm of the Fraser River, New Westminster, B.C. The officers of the Shull Lumber and Shingle Company are John Shull, Portland, Ore., president, and H. A. Shull, Vancouver, secretary-treasurer. The sales offices are located in Seattle, Wash.

Woods operations in Northwestern Ontario are being handicapped by the scarcity of labor. A report from Fort Frances, Ontario, states that the Shevlin-Clarke Company still require some 800 men for the bush, and that tie contractors are also short of labor.

Hon. A. E. Kemp, Minister of Militia, in addressing a luncheon party given in his honor at the King Edward Hotel, Toronto, on December 16th, said that Great Britain had requested more forestry and more construction battalions, and that Canada would send these forward.

The Board of Governors of the University of British Columbia has unanimously resolved that the recommendation of the Senate regarding the creation of a school of forestry be carried out, providing government approval can be obtained.

The Waterous Engine Works Company, Limited, Brantford, Canada, have again favored their business friends with a large office calendar this year. The calendar bears a bird's eye view illustration of their plant and a number of small illustrations of the interior and of some of their products.

The annual meeting of the National Wholesale Lumber Dealers' Association will be held at Pittsburgh, Pa., on Wednesday and Thursday, March 21st and 22nd.

Let Us Confer with You About Lumber

If you've never bought from us you can't realize the many advantages in so doing. Our stock is complete, containing every kind of lumber, laths, shingles, etc. It is our aim to sell at prices that will move our stock quickly. The benefit is yours.

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WHOLESALE LUMBER AND TIMBER
Dressed and Rough
White and Red Pine, Spruce, Hemlock, Banksian Pine, Birch, Maple, Dimension Cedar, B. C. Fir, Yellow Pine, Railway Ties, Fence Posts, etc.
Prompt shipment. Satisfactory stock. Good service Write for Prices.
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Your Blower System

If you contemplate installation of a new blower system or an extension of your present one, write us, as we have a unique proposition to offer. There is no heating, clogging or shaking with our system.

Prices on application

The Toronto Blower Co.
156 Duke St., Toronto

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

How Is *Your* Work Going?

"Sit down, Thompson; how's the work going?"

"It isn't going—it's ***dragging***."

"What's the matter—men sore?"

"No! There s no complaint. Grub is good; men seem willing enough—but they don't put their heart into the work."

"Say, Thompson, why don't you get real beds for the men, ***like the one I'm sitting on?***"

"Holy mackerel! I ain't running a Ritz-Carlton Hotel at my camp."

"I don't mean brass beds and Ostermoor mattresses; I mean sanitary steel bunks ***with real springs***. They will be money in your pocket."

"You mean money ***out*** of my pocket."

"No, sir! The trouble with your men is lack of rest. They don't get a good night's rest on those hard, wooden bunks of yours that can't possibly be kept free from vermin; they can't do a day's work. Those old bunks are costing you a pile of money, because they are keeping the men from doing their best work.

"Tell you what, Thompson, rip out the old wooden shelves that your men are trying to sleep on—put in ***'Alaska' Sanitary Steel Bunks***—and you'll find that your men will turn out about 25% more work. I proved it myself, and so did Miller." (***So have many others.***)

Alaska Sanitary Steel Bunks Cost More, But are the Cheapest in the End.
It's Not Too Late to Equip *Your* Camp With Them. May We Quote You?

The Parkhill Manufacturing Co., Limited

MONTREAL — WINNIPEG
GUARANTEED ALASKA BEDDING
TRADE MARK REGISTERED

Successors to
THE ALASKA FEATHER & DOWN CO., LIMITED
Makers of Steel Bunks, Bedsteads and Bedding
400 St. Ambroise St. :-: MONTREAL
"ALASKA on an article means HIGH-GRADE EVERY PARTICLE"

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing	35 00	36 00
1 x 12 common and dressing	38 00	40 00
1 x 10 and 12 mill cull stocks.	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	37 00
1 x 8 box and common		28 00
1 x 10 inch box and common.		30 00
1 x 12 inch box and common.		31 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	28 00	29 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill run 1-in. and 2-in.		27 00
Spruce mill culls		23 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft.		20 00
1 x 6-in. x 9 to 16 ft.		25 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		26 00
2 x 4 to 12 in., 12 and 14 ft.		25 00
2 x 4 to 12-in., 18 ft.		28 00
2 x 4 to 12-in., 20 ft.		30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in B. C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		35 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		36 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		36 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		37 00
10x20, 18x20, up to 32 ft.		37 50
6x18, 8x18, up to 32 ft.		37 50
6x20, 8x20, up to 32 ft.		38 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain		35 00
Fir flooring, 1 x 4, edge grain		38 50
Fir flooring, 1 x 4, flat grain		30 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1 4-ft. pine lath		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath		4 25
1½-in. mill run hemlock lath.		4 00
XX B. C. cedar shingles		2 60
XXX 6 butts to 2-in.		3 45
XXXXX		3 85

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	40 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1st and 2nds, 4/4	44 00
Birch, No. 1 com, and bet., 4/4	35 00
Birch, 1st and 2nds, 6/4 and 8/4	46 00
Birch, 1st and 2nds, 10/4 and 12/4	60 00
Birch, 1st and 2nds, 16/4	62 00
Basswood, 1sts and 2nds, 4/4	45 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	19 00
Basswood, 6/4 and 8/4, 1sts and 2nds.	48 00
Basswood, 6/4 and 8/4, com. and bet.	40 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft Elm, No. 1 com. and bet., 4/4	35 00
Soft elm, No. 2 and 3 common	19 00
Soft elm, 6/4 and 8/4, 1 and 2	45 00
Rock elm, 1sts and 2nds, 6/4 x 8/4.	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	40 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1st and 2nds, 4/4	40 00
Hard Maple, common and better, 4/4	33 00
Hard maple, 12/4 & 16/4, 1sts and 2nds	50 00
Red oak, plain, 1st and 2nds, 4/4	62 00
Red oak, plain, No. 1 co., 4/4	43 00
Red oak, plain No. 2 com. 4/4	32 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	68 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1sts and 2nds, 4/4	62 00
White oak, plain, No. 1 com., 4/4	42 00
White oak, plain, No. 2 com., 4/4	32 00
Red and White oak, plain, 1sts, and 2nds, 5/4 and 6/4	60 00
Red and White oak, plain, No. 1 com. 5/4 and 6/4	45 00
Red and White oak, plain, No. 2 com. 5/4 and 6/4	35 00
Red and White oak, plain, 1sts and 2nds, 8/4	70 00
Red and White oak, plain, No. 1 com. 8/4	50 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	89 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	92 00
White oak, ¼ cut No. 1 common	57 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	24 00	26 00
Pine, 1-in. x 4-in. s.c. strips		26 00
Pine, 1-in. x 5-in. s.c. strips		27 00
Pine, 1-in. x 6-in. s.c. strips		30 00
Pine, 1-in. x 7-in., s.c. strips		27 00
Pine, 1 x 8 in. s.c., 12 ft. to 16 ft.		36 00
Pine, 1-in. x 10-in. M. R.		34 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in.	22 00	24 00
Pine, s.c. and bet, shorts, 1 x 5		23 00
Pine, s.c. and bet., shorts, 1 x 6		25 00
Pine, s.c. shorts, 6'-11', 1"x10"		26 00
Pine, box boards:		
1" x 4" and up, 6'-11'		20 00
1" x 3", 12'-16'	21 00	22 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	22 00	24 00
Pine, mill culls stock, 1 x 12		23 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	14 00	15 00
Red pine, log run:		
mill culls out, 1-in.	20 00	22 00
mill culls out, 1¼-in.	21 00	23 00
mill culls out, 1½-in.	21 00	23 00
mill culls out, 2-in.	23 00	25 00
mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	17 00	18 00
1"x 4" and up, 12'-16'	21 00	23 00
1"x 9"-10" and up, 12'-16'	25 00	27 00
1¼"x 7" 8-9" and up, 12'-16'	25 00	27 00
1¼"x 10" and up, 12'-16'	25 00	27 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	$ 25	$ 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	2 00
32-in. lath	1 00	2 00
Wmite Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	18 00	18 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00	
1 in., 8 in. and up wide	62 00	
1¼ and 1½ in. and up wide	65 00	
2 in. and up wide	70 00	
Cuts and Better		
4/4 x 8 and up No. 1 and better	50 00	
6/4 x 8 and up No. 1 and better	60 00	
8/4 x 8 and up No. 1 and better	62 00	
6/4 x 6 and up No. 2 and better	52 00	
8/4 x 6 and up No. 2 and better	54 00	
6/4 x 6 and up No. 3 and better	46 00	
8/4 x 6 and up No. 3 and better	50 00	
No. 1 Cuts		
1 in., 8 in. and up wide	40 00	
1¼ in., 8 in. and up wide	55 00	
1½ in., 8 in. and up wide	57 00	
2 in., 8 in. and up wide	60 00	
2½ and 3, 8 in. and up wide	75 00	
4 in., 8 in. and up wide	85 00	
No. 2 Cuts		
1 in., 6-in. and up wide	31 00	
1¼ in., 6-in. and up wide	42 00	
1½ in., 6-in. and up wide	44 00	
2-in., 6-in. and up wide	44 00	
2½, 3 and 4 in., 6-in. and up wide	62 00	65 00
No. 3 Cuts		
1 in., 6-in. and up wide	24 00	
1¼ and 1½ in., 6-in. and up wide	33 00	
2-in., 6-in. and up wide	33 00	
2½, 3 and 4-in., 6-in. and up wide	43 00	48 00
Common and Dressing Mill Run		
1-in. x 4-in.		27 00
1-in. x 5-in.		27 00
1-in. x 6-in.		28 00
1-in. x 8-in.		28 00
1-in. x 10-in.		30 00
1-in. x 12-in.		34 00
1 in. x 13 in. and up		34 00
1¼, 1½ and 2-in.		30 00
No. 1 Barn		
1 inch	33 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00
No. 2 Barn		
1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00
No. 3 Barn		
1 inch	26 00	30 00
No. 1, 1, 1¼, 1½, 2-in.	26 00	30 00
Box		
No. 1, 1, 1¼, 1½, 2-in.	22 00	25 00
No. 2, 1¼, 1½, 2-in.	24 00	25 00
Mill Culls		
Mill run culls, 1-in.		19 00
1, 1¼, 1½ and 2-in.		20 00
No. 2	17 00	18 00
Lath		
No. 1, 32-in. pine		1 85
No. 2, 48-in. pine		4 50
No. 1, 48-in. pine		5 00
No. 3, 48-in. pine		4 00
Hemlock Lath 48 in.		4 00

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

S. 1 S. and 1. E.

Dimension	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4, 6, 8	15 00	18 00	21 50	22 50
2 x 10	19 00	19 50	22 50	23 50
2 x 12	19 00	20 00	24 50	24 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH

Mountain Stock

Dimension

2 x 4, 8, 12, 14, 16	22 50
2 x 4, 10, 18, 20	24 50
2 x 6, 8 to 16	22 50
2 x 8, 8 to 16	22 50
2 x 4-6 and 8-in.; 24, 26, 28, 30, 32 ft.	30 50
2 x 10 and 2 x 12; 8-16 ft.	27 50
2 x 10 and 2 x 12; 18, 20, 22 ft.	29 50
2 x 10 and 2 x 12; 24, 36, 28, 30, 32 ft.	31 50
No. 1 Common Boards	
4 inch	22 00
6 inch	24 50
8, 10, 12 inch	26 50
Mixed widths	25 50
Flooring	
4 or 6 inch No. 1	36 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	25 00
Shiplap—Finished	
6 inch	23 00
8, 10 and 12 inch	24 00
Siding	
6 inch No. 1	36 00
6 inch No. 2	34 00
6 inch No. 3	26 00
Lath	
No. 1 Cedar, pine, spruce (not mixed)	5 50
No. 1 Cedar, pine, spruce (mixed)	4 50

PINE—ROUGH TIMBER

3 x 6 in.; 8 to 16 ft.	28 10
3 x 8 in.; 8 to 16 ft.	25 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	28 00
4 x 10 to 10 x 10, 8 x 8, 6 x 12 in. up to 32 ft.	30 00

BRITISH COLUMBIA COAST FIR

Dimension S1S & E

2 x 4 in.; 6 and 8 ft.	21 50
2 x 4 in.; 12 and 14 ft.	22 50
2 x 4 in.; 10 and 16 ft.	23 50
2 x 4 in.; 18 and 24 ft.	24 50
2 x 4 in.; 22 and 24 ft.	25 50
2 x 4 in.; 26 to 32 ft.	27 50
2 x 10 and 2 x 12 in.; 10 to 16 ft.	24 00
2 x 10 and 2 x 12 in.; 18 and 20 ft.	26 00
2 x 10 and 2 x 12 in.; 22 and 24 ft.	27 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	29 00
2 x 14 in.; 10 to 16 ft.	29 00
2 x 14 in.; 18 and 20 ft.	31 00
2 x 14 in.; 22 and 24 ft.	32 00
2 x 14 in.; 26 to 32 ft.	34 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	25 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	26 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	27 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	28 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	30 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	28 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft.	28 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft.	29 50

FLOORING

Nos. 1 and 2, 1 x 3 in., E. G.	40 00
Nos. 1 and 2, 1 x 4 in., E. G.	39 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in., or 6 in., F. G.	31 00
No. 3, 1 x 4 in. or 6 in.	28 00
No. 3 Edge grain $3.00 per M. extra.	

SHIPLAP

B. C. Fir, 6 in.	22 50
B. C. Fir, 8, 10, 12 in.; 8 to 16 ft.	23 50
No. 2 Shiplap, 6 in.	22 50
No. 2 Shiplap, 8, 10 and 12 in.	23 50

FIR, COMMON BOARDS, S 1 S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	21 00
Common Boards, 8 to 12 in.	22 00
No. 2 Mixed widths	17 00
No. 2 Boards, 8 to 12 in.	18 00

SHINGLES

XXX B. C. Cedar	2 85

LATH

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath ⅜ x 1½ in. x 4 ft.	5 00

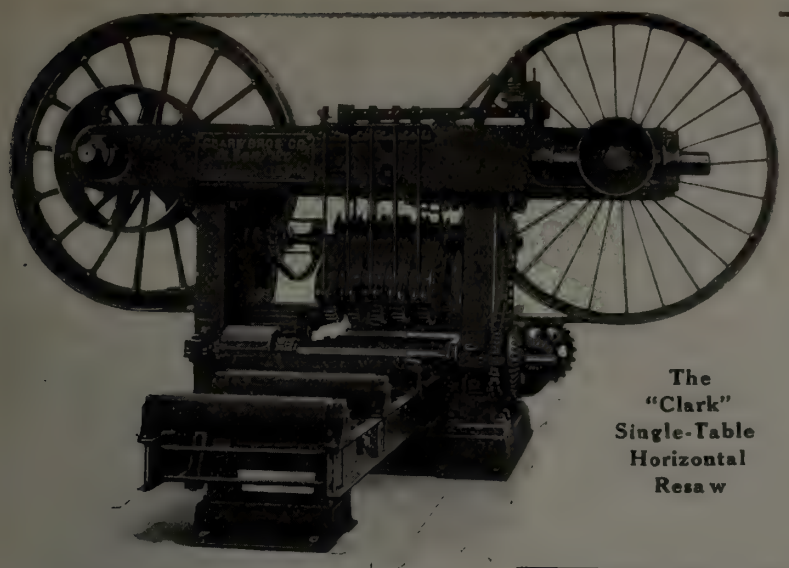
BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	100 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00

(Continued on page 56)



The "Clark" Single-Table Horizontal Resaw

Ever Consider Why These Machines are so Popular?

The possibility for fast and accurate production—is the answer

Some of the special features of the "Clark" Horizontal Resaw are—

The method of returning stock through machine, eliminating expensive return system—The use of the lower part of saw blade, this means the resaw sets on mill floor where every part is accessible. Entire table twenty-four feet long raises and lowers—Elimination of sawdust around wheels as all dust and bark passes through frame to conveyor below. Hand or Steam Set-works—Range of thickness from ½ in. to 14 in., made in two sizes, 66 to 84 inches.

Many other special features are described in our Resaw catalog. Mailed on request.

We will introduce Jan. 1st our New Portable Band Mill complete. If interested write us for Catalogue.

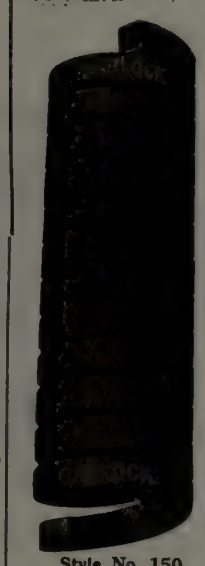
BUILT BY

CLARK BROS. CO., Olean, N.Y., U.S.A.

Garlock Packings

Are made in over two hundred styles and combinations to meet every known requirement. We will assume entire responsibility in selecting the proper styles and combinations of our packings to work successfully and economically under any stated condition; and if goods are not wholly satisfactory to purchaser we will refund promptly the cost of same. A card will bring our new catalog which fully describes our various styles of packings.

Style No. 777



Style No. 150

The Garlock Packing Co.

Hamilton, Ontario

Branches: Calgary, Montreal

Branches: Toronto, Winnipeg

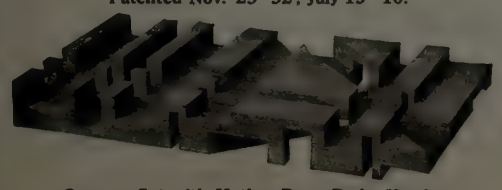
Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Patented Nov. 29 '92; July 19 '10.



Grooves Cut with Huther Bros. Dado Heads

Fits Any Saw Mandrel

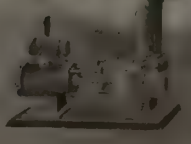
A Huther Bros. Dado Head consists of two outside cutters and enough inside cutters to make the required cut. This Head will cut perfect grooves, with or across grain, any width. It is an easy Head to keep in perfect condition, has a simple quick adjustment, and may be enlarged any time after purchase. Sent on approval and if not satisfactory return at our expense.

Write for New Illustrated Catalog.

HUTHER BROS. SAW MFG. COMPANY, Inc.

1103 University Ave.
ROCHESTER, N. Y.

DARLINGS STEAM APPLIANCES



DARLING BROTHERS
LIMITED
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No. 1 Moulding 8/4	62 00
No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	34 - 35	21 - 23	13 - 15
5/4 to 8/4	37 - 38	24 - 25	14 - 15
10/4 to 16/4	43 - 45	31 - 33	20 - 22

RED BIRCH

4/4	45 - 47	28 - 30	14 - 16
5/4 to 8/4	46 - 48	30 - 32	16 - 18

SAP BIRCH

4/4	41 - 43	28 - 30	18 - 20
5/4 and up	41 - 43	28 - 30	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	34 - 36	23 - 25	15 - 17
Thicker	34 - 36	25 - 28	18 - 19

PLAIN OAK

4/4	50 - 52	31 - 33	19 - 21
5/4 to 8/4	52 - 54	33 - 35	21 - 23

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	51 - 53	28 - 30	18 - 20
10/4 and up	64 - 66	40 - 42	20 - 22

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White pine uppers, 1 to 2 in...		98 00
Selects, 1 to 2 in.		88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	72 00	74 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	38 00	40 00
No. 1, 1 x 8	37 00	38 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10		37 00
No. 2, 1 x 8		35 00
No. 3, 1 x 12	31 00	32 00
No. 3, 1 x 10	30 00	31 50
No. 3, 1 x 8	30 00	31 00
Canadian spruce boards	25 00	27 00
Spruce, 10 in. dimension	28 00	30 00
Spruce, 12 in. dimension	29 00	31 00
Spruce, 9 in.		29 00
Spruce, 8 in. and under dimen.		28 00
10 and 12 in. random lengths, 10 ft. and up		29 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00	24 00
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	22 50	23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 00
1⅜ in. spruce laths		4 25
1½ in. spruce laths	3 80	4 00

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Extras	3 50	3 80
Clears		3 30
Second clears	2 30	2 40
Clear whites	2 00	2 20
Extra 1s (Clear whites in)		1 60
Extra 1s (Clear whites out)		1 50
Red Cedar Extras, 16-in. 5 butts to 2 in.		4 00
Red Cedar Eurekas, 18-inch 5 butts to 2 in.		4 25
Red Clear Perfections, 5 butts to 2¼		4 80
Washington 16-in. 5 butts to 2-in. extra red clear		3 65

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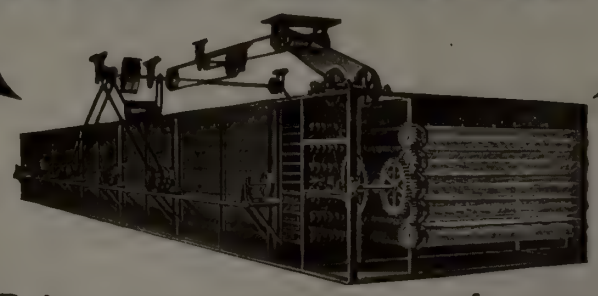

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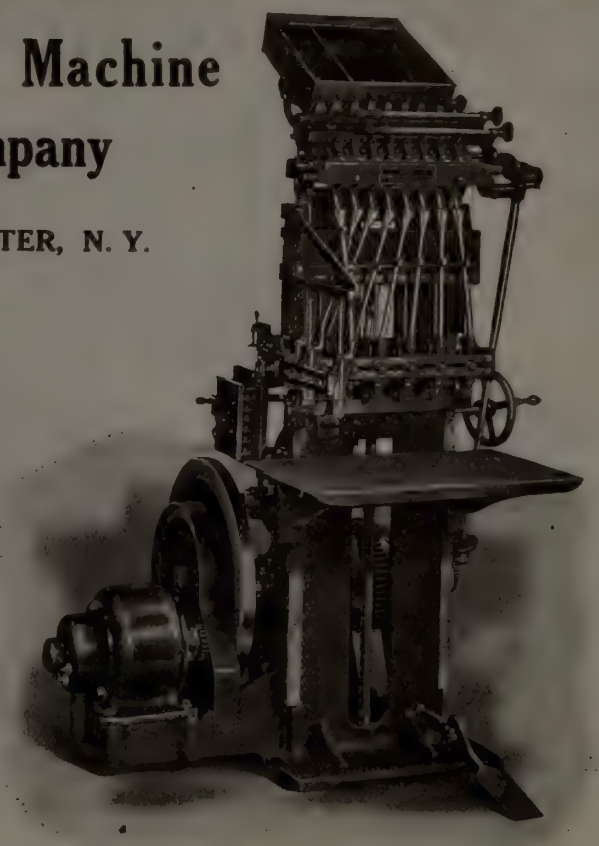

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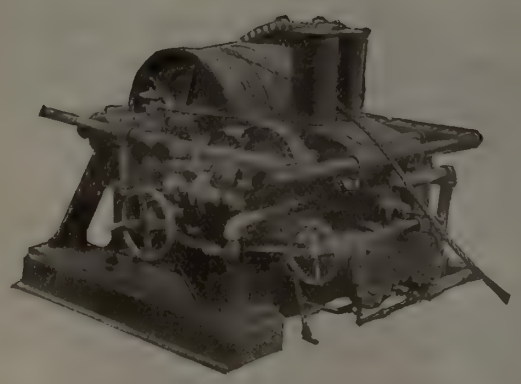

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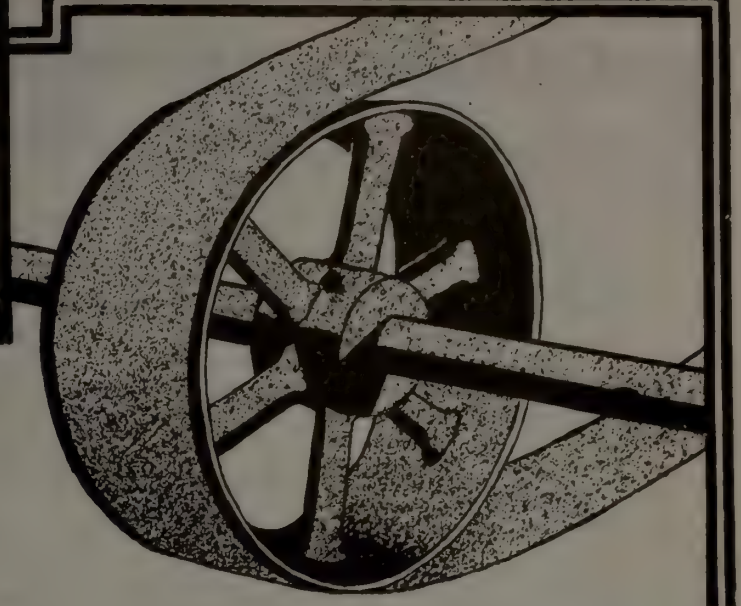

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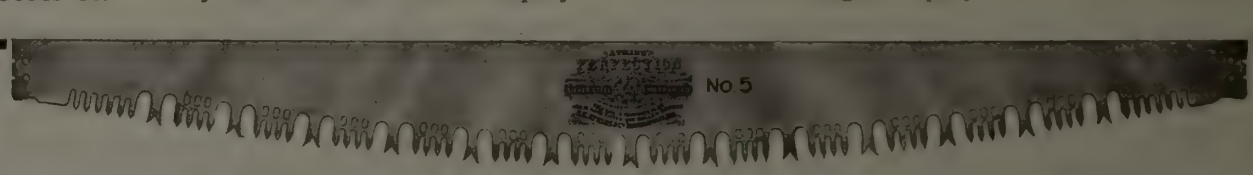

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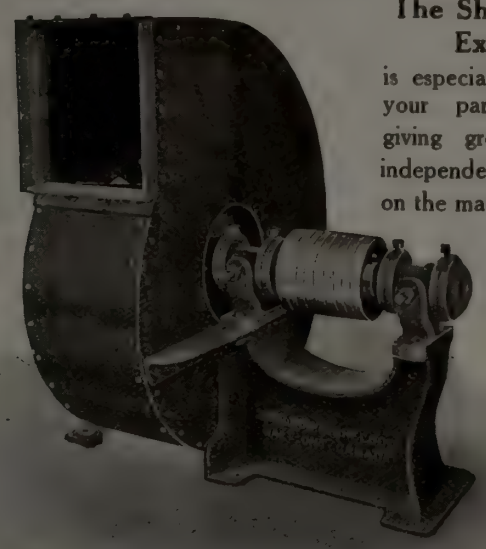

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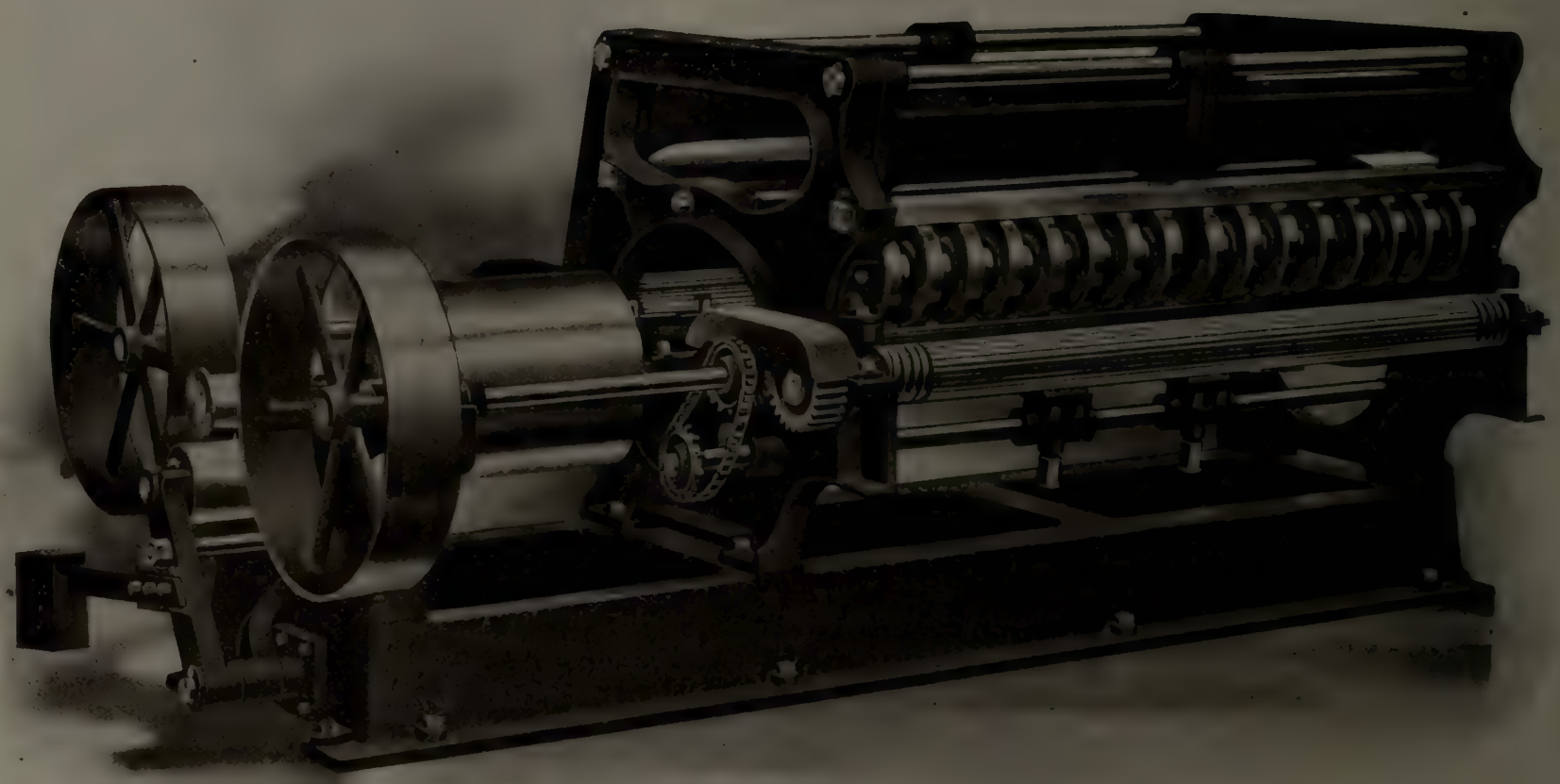

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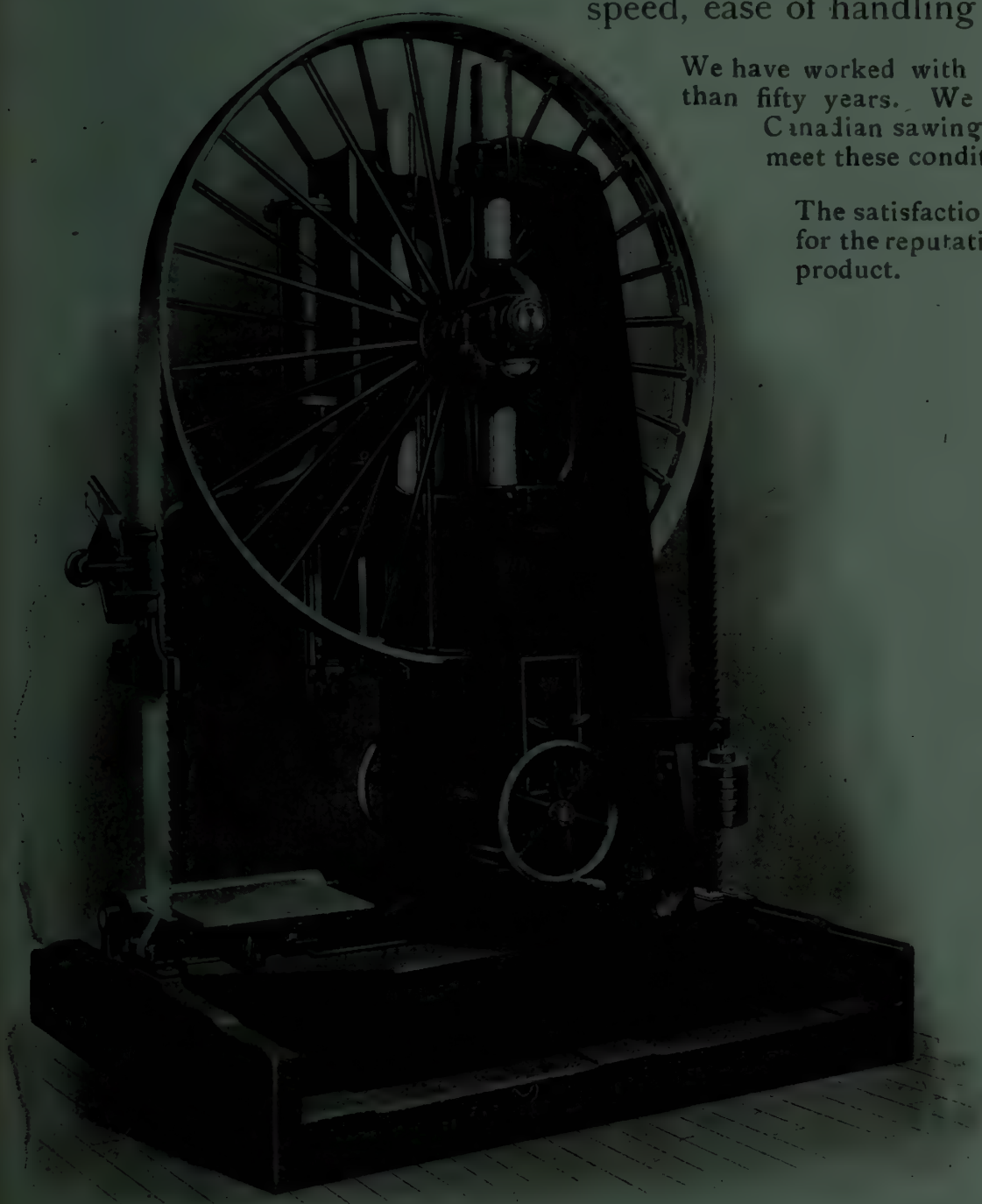

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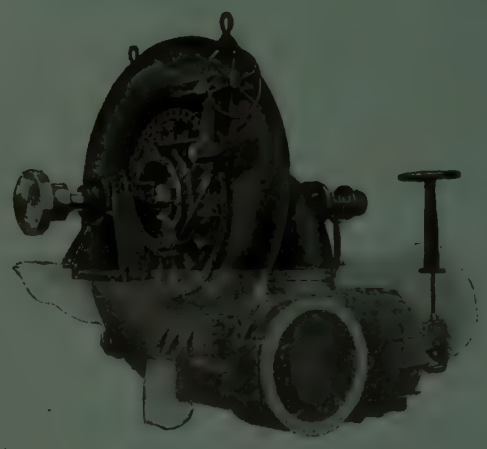

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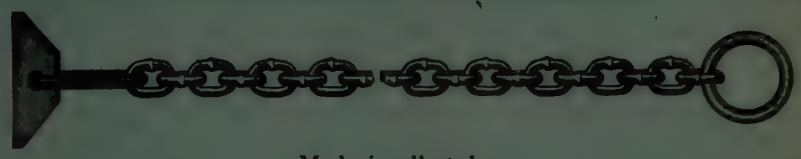
Your Jobber Sells Them.



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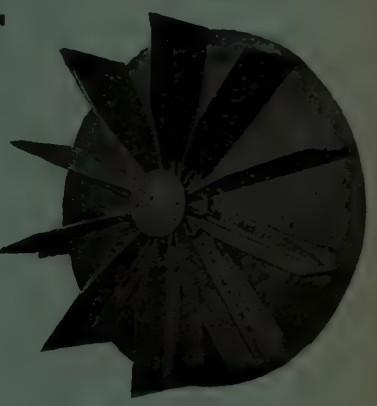

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Made according to the most approved ideas with connections to suit any requirement. Injectors start from 2 to 3 lbs. of steam pressure when water is taken from a barrel or tank, at level of the Injector. With water pressure of 20 lbs. they start at from 10 to 12 lbs. of steam and work up to 175 lbs. Used for low pressure in steam heating plants.

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Alphabetical Index of Advertisers, Page 56 Classified Directory to Advertisements, Page 64

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100,000 Ft. 1 x 4 x 6/16 Dry Merchantable Spruce

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1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

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1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

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1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

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1 Automatic Filing Machine for 12-in. D.C. band saws.

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1 Double Duplex, high pressure Water Pump.

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Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

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Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

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5/4	No. 1 Com.	"	"	8″x13′	12,000 ft.
6/4	1st and 2nds	"	"	8″x13′	7,000 ft.
6/4	No. 1 Com.	"	"	8″x13′	7,079 ft.
8/4	1st and 2nds	"	"	10″x13′	29,000 ft.
8/4	No. 1 Com.	"	"	10″x13′	3,550 ft.

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80,000 ft. 4/4 Mill Run Maple

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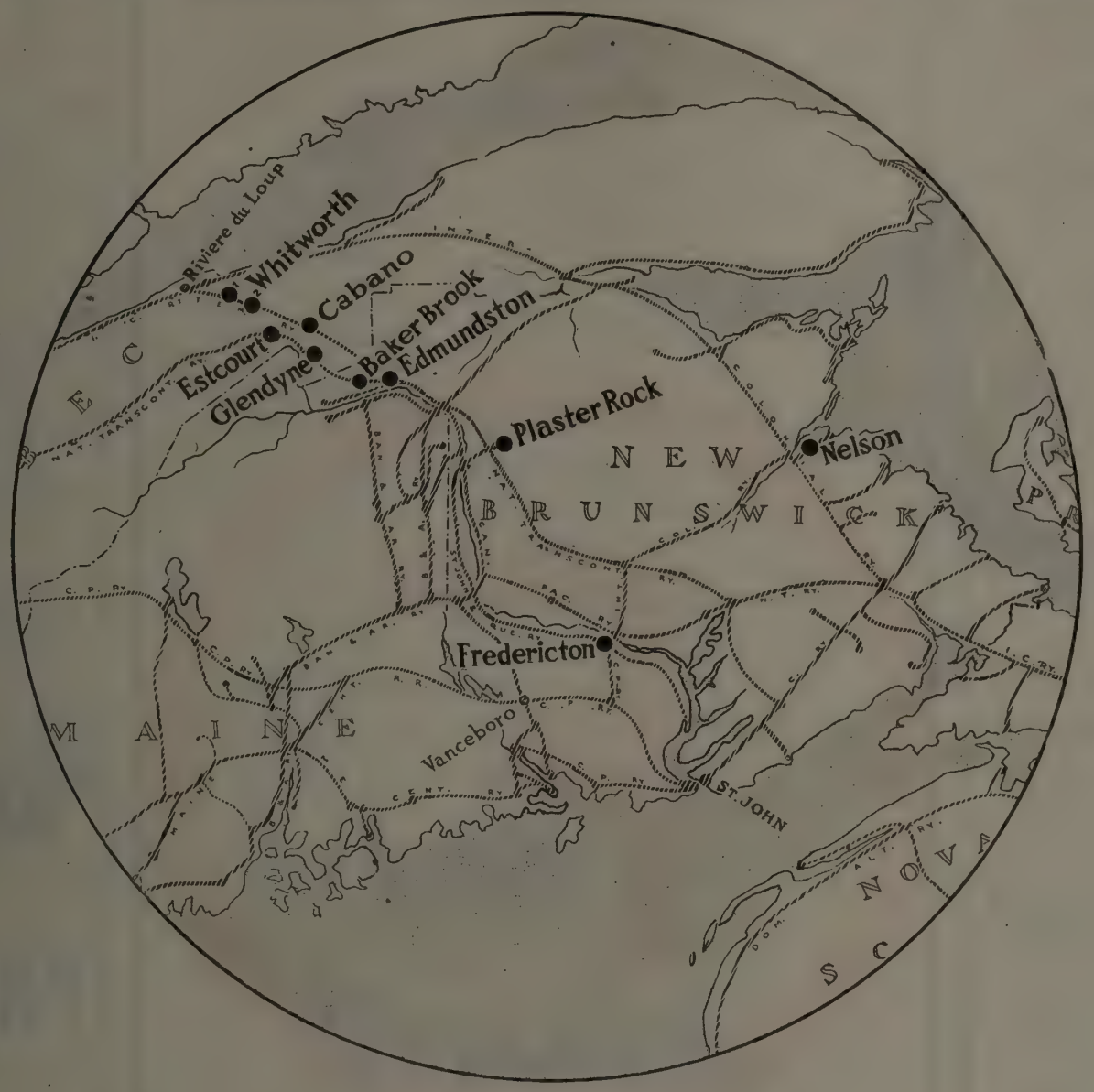

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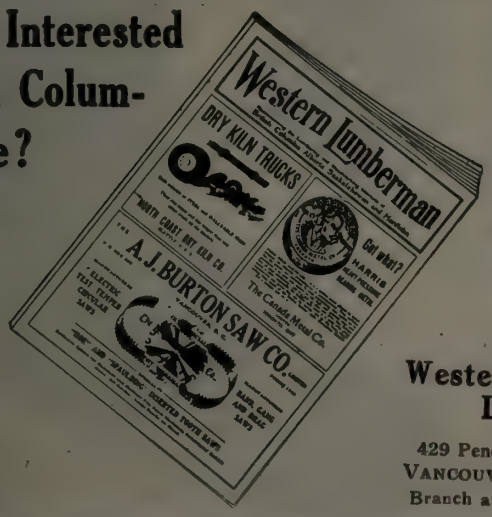

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"T & G"
Quality Shingles
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XXX 16" clears
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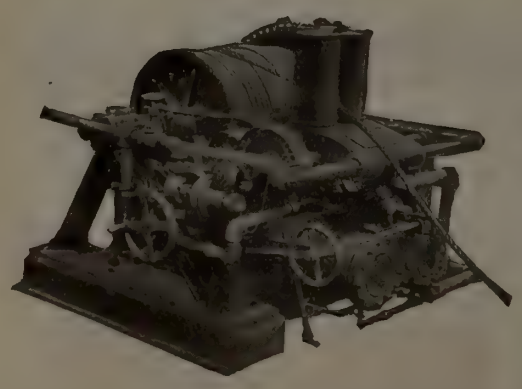

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22,000 ft. 8/4 No. 1 Com. and Bet. Sap Gum.

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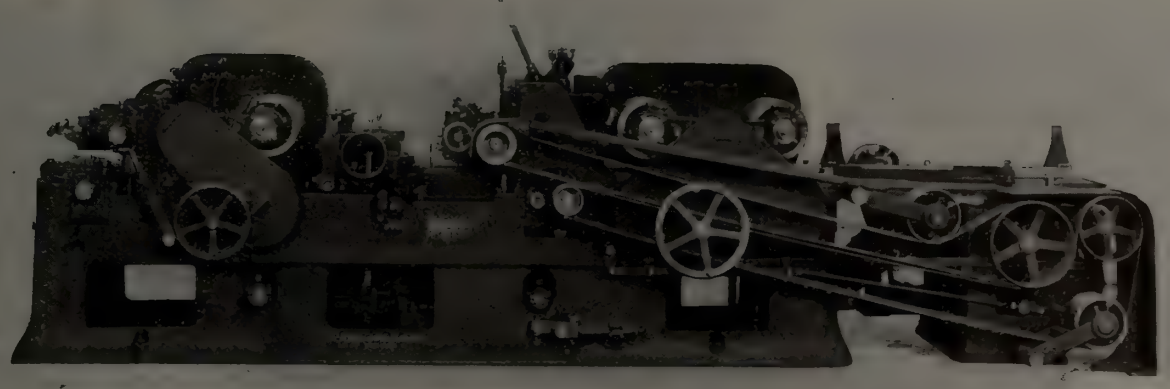

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Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Why the Lumber Industry in the U. S. is Unstable

A remarkably clear and important analysis of the situation confronting the lumber industry in the United States is contained in a report prepared by the U. S. Forest Service, which has just been made public, Although considerable attention is devoted in the report to many of the lumber industry's difficulties, chief importance is attached to the problems arising out of the ownership of standing timber. Too large stocks of timber acquired from the public domain and too much timber speculation mixed with the manufacture of lumber, says the report, underlie the present instability of the industry.

The main problem of the lumber industry has grown out of the hundreds of billions of feet of timber acquired cheaply a few years ago from the public domain. Lumbermen in the west are carrying vast quantities of timberland beyond all possible needs of their present sawmills and logging camps. Widespread speculation during a few years of sudden development carried timber values very high, and many western stumpage holdings have been over-capitalized.

The business of making lumber has thus been loaded down with investments in timberland. The productive branch of the industry has been interlocked too largely with speculations in its raw material; and instead of standing on its own feet as a manufacturing business, has tended to be the tail of the dog, made frequently to serve the exigencies of timber speculation. According to the report, pressure from an overload of timber is the first cause of the general instability of the industry. For one thing, it has led to building mills beyond the demand for their products. At least a third of the saws are now idle.

On the other hand, social and economic changes are reducing the proportionate use of lumber. Uses taken over by other structural materials within the last ten years are estimated at one-fifth of the present yearly cut of lumber; and in the same period the per capita consumption of lumber seems to have passed its peak and dropped nearly one-fourth.

Caught with its burden of timberland on the one hand and these changes in the use of wood on the other, the lumber industry has been between an upper and nether millstone. The combined result is an ill-adjustment of lumber production to market requirements, with frequent, almost chronic overproduction. Ups and downs have been the rule with most manufacturers in the west and south. Occasional years of high earnings have been followed by usually longer periods of small profits or loss. The latter reached their climax in 1914 and 1915, although 1916 brought somewhat better conditions.

The rising cost of lumber to consumers, which held generally up to 1907, is attributed primarily to the exhaustion of the supplies of timber nearest to the bulk of eastern consumers, and the necessity for transporting lumber from greater and greater distances. Railroad freights now take a fifth or more of the consumers' price, retailers about the same amount, and manufacturers, on the average, little more than one-half. The high cost of lumber is thus due in large part to local timber shortage, resulting from the rapid using up of forests without provision for their renewal. Other causes lie in the greater demands for specialized service made upon the retailer by the purchasing public, in higher labor costs, and in the decreasing purchasing power of money. Since 1907, however, the effects of overproduction have been felt, and the prices of common structural woods have made no sustained increase.

The experts in the Forest Service believe that a more stable kind of forest ownership, divorced from manufacture to a larger degree than now, must come about before the ills of the lumber business can be cured permanently. This kind of ownership must not only carry the present stocks of merchantable timber until the productive industry needs them, but also provides for regrowth on cutover lands. The extension of public forest ownership, both state and national, should, in the judgment of the Service, have a large part in this accomplishment.

A national mistake was made in such rapid and wholesale passing of title to timberlands in the public domain, beyond all immediate needs for local or industrial development. Private ownership, hard pressed to carry these staggering quantities of timber during the long periods which must necessarily elapse before they can be converted into lumber, is now sacrificing them in part by wasteful use because of its own financial exigencies. The carrying of this future resource should have been a public rather than a private function. The report urges that this situation be faced frankly and the obvious remedy applied, that of taking part of the western timberlands back.

U. S. Duty on Lumber Proposed

It is some years now, since the lumbermen of Canada had any reason to take an interest in the question of duty upon lumber entering the United States from Canada. We have had a free market into that country now for some years, and while this has been a benefit to the Canadian manufacturers and wholesalers and has made it possible for them to extend the range of their markets across the border, we do not believe that in the case of lumber the freedom of the United States markets to our products has worked any hardship upon the producers of that country. On the other hand, it has undoubtedly worked out to the benefit of the consumers across the line, who have had a wider range of products from which to choose. The quantity of lumber that Canada can export to the United States is a very small proportion of the amount consumed in the markets which it reaches, and it does not therefore exert an important influence upon prices across the line. So far as prices are concerned in fact, the situation in the United States has little or nothing to do with imports from Canada, whereas the Canadian market for a number of the most important lines of lumber is affected adversely at very frequent intervals by heavy imports from the United States.

There are signs now, that the duty question is again coming to the front in the United States and that an effort to place a duty upon lumber, lath and shingles is about to be made. As a revenue producing measure, a duty upon lumber would, of course, produce a

certain amount of money, but as a means of protecting the United States manufacturer against Canadian products it would be of little or no value, for the reason we have already suggested, that imports from Canada are too light, even under free entry, to make any inroads upon prices or upon the volume of trade remaining for United States mills. In fact, under present conditions we very much doubt whether the wisdom of such a course will be quite apparent, even to the manufacturers of the United States themselves, on account of the scarcity and high cost of labor which is disorganizing industry both in that country and in Canada. At present, the labor situation in both countries is acute, although in Canada it is more so than it is across the line.

During the coming year the volume of lumber produced in Canada will be far below normal and the cost of producing it will be so heavy that the volume of exports to the United States is certain to show a great falling off. Labor has become so expensive in the United States that it does not look as though producing sections of the country whose mills compete with Canadian mills will be able to turn out sufficient stock to meet the demand that everyone is expecting. Under these conditions it is doubtful whether the effect desired by the imposition of a duty upon lumber can be realized. Those who are suggesting this duty urge it as a means of producing revenue. The situation we have alluded to makes it very much of a question whether the amount of revenue thus secured would recompense the country for the expenditure involved in collecting it.

There are, moreover, the interests of the consumer in the United States to bear in mind, and while we do not think that the imposition of a duty would have much effect as a revenue producer, it does seem within the realm of possibility that even the comparatively small volume going into the United States from Canada, might, under present abnormal conditions, if discontinued, be looked upon by the consumer as one of the factors in increasing his cost of living.

However, apart entirely from the Canadian point of view, the problem is engaging attention across the line in connection with an extensive proposition for increasing revenue in order to meet an estimated treasury deficit of $300,000,000 for the fiscal year 1918. The suggestion in its present form is that a duty of 10 per cent. should be placed up lumber, lath and shingles. This duty is only one of a number of ways of raising money that are under consideration. By far the largest portion of the money required would be raised by a tax upon "excess" earnings of corporations, if the proposed plan is put into effect. It is anticipated that the proposed duty of 10 per cent. on lumber, lath and shingles would produce a revenue of $2,000,000.

Ontario Wholesalers and Manufacturers Approve Credit Organization

The decision of the wholesale lumbermen and manufacturing lumbermen who sell to retailers in Ontario to organize a credit bureau in order to enable them to obtain reliable information regarding the standing of credit customers, as reported elsewhere in this issue, is one of the most important developments in the trade that has taken place in Ontario for many years. A casual consideration of circumstances in connection with credits of wholesalers and manufacturers leads straight to the conclusion that co-operation of this kind is a reasonable business proposition; but in the past, whenever efforts have been made to crystalize such ideas into action, the apparent difficulties have been so great as to render such attempts as have been made either abortive or only partially productive of results. It was not until something had been actually accomplished by the retailers of Toronto along a similar but quite original line that the wholesalers and manufacturers were convinced that their own credit problems could be handled in a practical and successful manner.

There are in practice two methods of co-operating in order to obtain credit information; and, without wishing to say anything to belittle one of these methods, we may briefly compare them and show what, in our opinion, is the reason why the one system has not received encouraging support in Canada while the other has been establishing itself upon an apparently permanent basis. In the first place, it is assumed that information which will enable the lumberman to know, before he ships his goods, whether he will get his money, is essential for successful trade. The problem is how to get this information and to render it readily available. For this purpose a few of the large associations of lumbermen in the United States have organized elaborate credit reporting associations, which employ extensive staffs and expend a great deal of money, comparatively speaking, in securing information on the risks connected with the granting of credit to customers. By means of correspondence and reporting connections with banks, lumbermen, and others, they secure reports which must be continually revised in order to render them of permanent value. This system, reasonable as it appears, is a difficult and expensive one to maintain, and has not, for this reason we believe, appealed strongly to the lumber trade in Canada.

The other system, the one which wholesalers and manufacturers in Ontario are now considering, is one which has been worked out by retailers both in Canada and the United States during the past five or ten years, and has been put into operation with invariable success. It works upon a plan exactly the reverse in many respects of the former system. Its basis is the sending in, at regular periods, of reports by each co-operating member, which reports give the names of all their customers and the quantity of stock they have bought since the last report, together with the amount for which they are then overdue in their payments. With some variations, this is the basis of all such systems. Other information is also given at the same time, such as a list of bad accounts and a list of accounts for which judgments have been secured. When once a bureau has information of this nature in its possession it is a simple enough matter and not a costly one to have the information tabulated and rendered available in concrete and valuable form for all members. The success which has marked this system wherever it has been introduced has been based upon two factors—firstly, the fact that the co-operating members have learned to trust one another implicitly; and, secondly, the fact that the information available through the bureau can be obtained without loss of time exactly when it is required. Upon this trust in one another and promptness of results the successful working of such a plan is based, and there is almost no limit to the extent to which the work of credit reporting may be developed along these lines, in accordance with the desires of those co-operating.

A system of this kind which can be made to produce good results at small expense is what the wholesalers and manufacturers of Ontario have concluded will suit their requirements. They have long been individually in favor of organizing for such a purpose, but it has remained for the retail trade of Toronto to make the experiment and show the others what can be done. The retailers, after a year and a half, have produced results that have practically eliminated the bad accounts from their books, and have done so well that the benefits have been extended to the wholesalers and manufacturers, who have found the retailers far better customers than they were when carrying great amounts of bad debts on their books. With such a proof before them it is easy to understand why the wholesalers and manufacturers have decided to adopt a similar plan.

While the organization has not been put into effect, it is reasonable to expect that in the course of a few weeks it will have been worked out. At a well-attended meeting those who were present were unanimous in their approval of the scheme, and letters were read from most of the important firms not in attendance, expressing their desire to co-operate. It remains only to lay the plan more definitely before a later meeting and to have it crystalized into definite working form.

Government estimates place the total United States investments in Canada at $978,000,000. Of this total about $150,000,000 represents the investments of American firms in branch factories in the Dominion.

Blister Rust Threatening White Pine

Serious Loss Certain if Plague is not Stamped Out—Lumbermen Anxious About Situation—History of the Disease

The appearance of the white pine blister rust in North America has awakened widespread interest and anxiety in regard to the problem of preventing this disastrous plague from destroying the white pine resources of the continent. It is not often that lumbermen are stirred to action in connection with a threatened danger of this sort, but the fact that throughout North America practically every lumberman who is interested in the five-needle pine trees is to-day aware of the danger that threatens, and is anxious to know how it can be averted, indicates that the situation is extremely serious. One may gather some idea of the danger by recalling the history of this disease in Europe. The white pine forests of Northern Europe to-day are a thing of the past. From its original home in America the white pine was quickly introduced into Europe because of its great commercial usefulness, but to-day there is no white pine to speak of in Northern Europe; it has been replaced by an inferior pine, and the white pine blister rust is entirely responsible for this situation. This fungus disease appeared in Europe and worked for years in silence, nobody suspecting that anything was wrong. Then the trees began dying here and there—slowly at first, rapidly later on. The eyes of the people were then opened, but it was too late, as the disease was firmly established. The governments fought the disease, and planted trees that were not subject to it, but the epidemic spread beyond control, and people were helpless to do anything but look on. It took years of study to discover the cause, and by the time that it was understood the white pine forests of Northern Europe had succumbed.

The white pine blister rust did not exist in America in early times. It doubtless reached this continent on seedlings sent over from Europe, and probably had been in America for some years before its actual discovery. Before the year 1914 the disease was practically unknown here, but in that year it appeared in one or two localities at first, and was immediately recognized. The fight to eradicate it has been in progress ever since. Even to-day the disease has obtained so strong a foothold that it is threatening the white pine resources of the whole continent.

In view of this situation it is not surprising to find that the Canadian Lumbermen's Association, the Canadian Forestry Association, and other bodies interested in the preservation of the timber resources of Canada are giving this problem a great deal of their attention. At the annual meeting of the Canadian Lumbermen's Association in Toronto on February 6th one of the chief subjects under discussion will be the white pine blister rust.

The history of the arrival and the establishment of the disease in North America is short and clear. During 1909 large shipments of foreign seedling pines were received in North America, part of which went to New York, New Jersey, New Hampshire, Pennsylvania, Connecticut, Vermont, Massachusets, Ohio, and Indiana. A portion of the same shipments was introduced into Canada. In all of these states and also as far as Minnesota the disease is well established, as well as in Canada. It was first discovered in Canada in 1914, near Guelph, Ont., and later in parts of the Niagara Peninsula, being found mainly in currants, but, unfortunately, on native pines also. It is now distributed generally in Southern Ontario, but is not yet known to have reached the important Northern white pine section, although no sympathetic search has been possible there. Quite recently the disease has been found in Ottawa in the currant rust stage, and now it is reported also in certain localities of Quebec Province. In Western Canada no inspection for discovering the disease has yet been possible. Both Ontario and the Quebec governments have become deeply interested, and are planning extensive investigations during the present year. It is not unlikely that they will require close assistance from the lumber companies and others directly interested, in order to get the best results.

The white pine blister rust is most dangerous to the young pine. When it has attacked the main stem and girdled it the tree is sure to die. During May and June the disease can be recognized. Later on only experts can locate it. During May and June the bark of the young white pine which, under normal conditions, is smooth and of a dark green color, will be found swollen, puffed up, and blistered if it is attacked by this disease. Breaking through the bark will be seen small whitish-orange scale-like bodies of a dusty, floury appearance and composed of the spores or seeds of this disease. There may be a few or many on each point of infection. They may be on any young branch or on the older wood, but they disappear after June and only the blister remains. Where the scales have been there will then often be small drops of resin or gum. In time this bark becomes rough and cracked. The disease makes progress slowly up and down or around the limb or the stem and kills the branch or the tree if it has girdled the stem. In old pines the disease may live for years, but young pines will succumb as soon as the main stem has been girdled.

Fortunately there is a practical method of fighting this disease. The spores produced by it cannot germinate on the pine direct, but pass the next stage of their life on another host plant. When they fall upon the leaves of wild or cultivated currants or gooseberries—particularly the cultivated black currant—they germinate and produce on the lower surface of these leaves minute little spore blisters, from one to a few hundred on one leaf. These blisters are filled with bright orange-red spores, as small as those on the pine. To the naked eye they appear to be nearly a reddish dust, which is the early summer stage. This stage may appear on currants and gooseberries in the neighborhood of the pines any time from June throughout the rest of the season. The rust does not kill the currant or gooseberry, but spreads by means of it, and may travel many miles in this way. Towards the end of the season the so-called late summer spores are produced, and these spores germinate only on white pines. This takes place in the fall, and it may require several seasons before the blister is produced on the pine which will give rise to the pine rust stage, thus completing the cycle of the life of the disease. It will be seen that the first work necessary is to locate all invaded localities. Then the task will be to decide whether in those localities the white pines or the currants and gooseberries shall be destroyed.

The white pine lumber produced in Eastern and Western Canada in 1915 was valued at $17,504,149, or nearly three-quarters of the value of the five commercial spruce species of Canada taken together. The necessity for taking immediate and effective methods to avoid the loss threatened through the white pine blister rust is therefore clearly evident.

Makes Brush Disposal Compulsory

All timber sales on Indian lands in Canada will be subject hereafter to a clause requiring thorough brush disposal. This move, which will be one of far-reaching importance, has been made by the Department of Indian Affairs, acting on the recommendation of Chief Timber Inspector M. J. Bury, and will introduce the brush disposal principle into lumbering operations on a very large area of Canadian forest lands. It comes into immediate operation and applies to old licenses as well as to any that may be issued in the future. Lumbermen when tendering for timber to be taken out under this new regulation will doubtless add the cost of brush disposal to the estimated cost of their logging operations. This action has been taken by the Department of Indian Affairs, as trustees of the Indian population of Canada, to reduce the extravagance and unnecessary devastation by fire which inevitably followed woods operations on Indian lands. The revenue from timber sales is turned into a common fund for the benefit of the Indians of the reservation. Preservation of the Indian timber will doubtless be assisted greatly by the action of the Department and, what is equally important, the experiment after a year or two will afford valuable data on which an extension of the brush disposal system to all Crown lands might be determined.

Working Out Ontario's New Fire Protection Plans

The Forest Protection Service of Ontario which was recently placed in charge of Mr. E. J. Zavitz, is already hard at work upon the large task which it has to face. Mr. Zavitz is spending the greater part of the present winter in Northern Ontario, locating the areas most in need of protection and arranging for co-operative action wherever possible. The Minister of Lands and Forests, Hon. G. H. Ferguson, has been in communication with many representative lumbermen on the subject and expects to receive from lumbering companies a great deal of assistance in the work of fire protection. In order to protect small municipalities in the north whose safety is menaced by the presence of standing timber near their doors, it is possible that legislation will be introduced this session to give the corporations some authority over wood lots in the surrounding country. This has not been definitely decided upon, but some such plan is being considered. Another step which the Minister has in view in order to lessen the fire risk in certain districts is to have all Government lands in burned districts seeded. This will serve the double purpose of furnishing a green cover which will prevent the starting and spreading of fresh fires, and of furnishing thousands of acres of good pasture land for settlers' cattle.

Surveying New Brunswick Timber Lands

Outline of Method of Operation and Results Secured—Important Information Obtained for Regulating Logging Operations

The annual meeting of the Commission of Conservation was held at Ottawa on January 16th and 17th. One of the chief events of the meeting was an address delivered by Mr. P. Z. Caverhill, of the New Brunswick Forest Service, who told of the work that is being done by New Brunswick in the direction of surveying and classifying the Crown lands of the province. In the course of his remarks Mr. Caverhill said:—

The Crown lands of the province, consisting of seven and three-quarter million acres, of which six and one-half million are under license, are the chief source of provincial revenue, and the value of the lumber industry is second only to agriculture, having at the present time a value in excess of $15,000,000.

Many changes have taken place with the development of this lumber industry. White pine, which, during the first half of the 19th century was our important timber tree, the export of this species alone in 1825 being over 400,000 tons of squared timber, has been for years nearly depleted. Hemlock, a few years ago valued only for its bark, is hard to get, at $12 to $14 per thousand for the round log. On spruce is was found necessary to reduce the diameter limit from 18 ft. 10 in. to 16 ft. 9 in. Thousands of acres of good timber land had been taken up under the pretense of agricultural development, only to be abandoned after desultory attempts at clearing and cultivating, and after the occupant had burned, possibly, thousands of acres of good timber. These signs of the gradual depletion of forest land led to a movement for definite knowledge of the condition of the public domain, and a classification of the land as to whether it was chiefly suitable for farm or timber.

Objects of Survey

As defined by the Act, the objects of the present survey are:

1st. To report with as much detail as possible upon the character and quantity of the lumber, estimating the quantity of timber and the reproductive capabilities of the forest area.

2nd. To estimate as accurately as possible the annual growth of timber upon each area or tract.

3rd. To report upon the accessibility of the timber on each section, estimating the cost of logging on the different areas, and the cost of stream driving to point of manufacture.

4th. To report the location of lands deemed suitable for agricultural purposes, distinguishing them from other lands that might be regarded as especially suitable for the growth and reproduction of timber.

The timber estimate is made by tallying all merchantable trees for a width of four rods along each strip, the tally sheets being so arranged that the timber is shown separately by species and diameter classes on each eight rods of the strip. This permits the showing in detail of the character of the stand and the type. From this tally the estimate is made from local volume tables, changed according to locality, and constantly checked by measurement of all available down trees.

At the same time notes are taken on condition of the stand, cost of logging, and condition of the stream for driving.

Estimating Annual Growth

The determining of the annual growth is possibly our hardest problem. We need to know as closely as possible what the actual growth per year is, as it will tell us what the results of our present system of management will be, and by a comparison with the potential growth of that site, or with the growth of similar sites under different systems of management, we can determine what steps are necessary in order that we may derive the greatest financial benefit from our timber lands.

Our forest land is largely covered with a stand of many aged mixed species; trees growing under all sorts of conditions, and these conditions constantly changing; as for example, when logging is conducted on an area, the light and soil moisture conditions, under which the remaining stand exists, may be entirely changed.

A white spruce measured seven years after logging showed an increase of 125 per cent. in the increment. But, while individual trees show this rapid increase, much of the forest capital is removed with the logging, and the net result in any but our over-stocked second growth stands will be a falling off in the yearly increment.

Method of Study

From our field sheets we were able to construct, by averaging a large number of acre strips, an average or model acre showing average conditions for any particular type; this gave the average number of trees by diameter class per acre of the different species, average height, and contents, by species and diameter.

The growth per cent. was obtained by boring into a large number of trees with an increment borer, and ascertaining the diameter growth for five-year periods for the past twenty years. The trees were taken at random, and recorded by types and diameter classes. Later all trees of a diameter class on any particular site and type were averaged together, it being assumed that if sufficient trees were studied an average could be obtained, which would represent the average of that diameter class throughout the site. The growth per cent. was then obtained for this average tree, and the per cent. applied to the model acre.

This year we made only a beginning on growth studies, making borings in spruce, fir, pine and cedar, in all some 2,500 trees were used, and the results showed a growth per cent. of from 6/10 of one per cent. for cedar over 12 inches in diameter, to 3.6 per cent. for white pine of 8 inches in diameter, or from 30 to 75 board feet per acre per year.

Next year it is my intention to supplement these figures by much more detailed studies, and it is hoped that we will arrive at a very close approximation of the actual growth.

Just a word as to the use the information gathered will be to the Department in the future management of the Crown lands.

1st. It gives definite information of the quantity, quality and value of the timber on any area, from which a very close appraisal of the stumpage can be ascertained, and will show whether the Department is receiving full value for the lumber cut or not, and they can adjust their stumpage rates accordingly.

It will show the quantity and quality of species now of little importance because of lack of market demand, and it is hoped that we will be able either to show that these species can be marketed profitably, or to induce industries utilizing these inferior species, where the quantity justifies it, to locate within the province, thus profitably utilizing material which is at present going to waste.

2nd. The estimation of growth will determine whether or not the annual cut can be increased, or whether restrictions should be placed on certain species to regulate the cut, in order to perpetuate the industry.

3rd. The base map, showing as it does the roads, creeks, swamps, and main topographical features, as well as the types, will be a great aid in planning and carrying out any scheme of protection.

4th. The information on soils will permit of directing settlement to localities where there is the greatest prospect of success, thus protecting both the future settler and the licensee, the latter at the present time having no assurance that portions of his license will not be taken from him under the Labor Act.

In conclusion, I would point out that with the completion of the survey we have not reached our ultimate aim. The soil conditions and topography are fixed and permanent. Not so with the timber conditions, which are constantly changing, as, new areas are culled, new fires occur, or burned areas come again into maturity, and it will be necessary to revise our maps from year to year. This calls for a permanent outside organization to inspect and report on all logging operations, to submit detailed reports on all fire and bug killed areas, and in general to keep the office in touch with the actual changes in field conditions. It is hoped in the course of the next year or two to weld our fire rangers and scalers into one permanent organization, which will give us sufficient force to carry out this work. We will then have ready on file information showing the actual condition and value of any area of our Public Domain at any time, and be ready to deal with any question of policy that may arise.

United States Considering a Duty on Lumber, Lath and Shingles

The ways and means committee of the House of Representatives of the United States and the finance committee of the Senate are considering a list of possible new taxes which would yield an estimated revenue of $073,000,000. By far the larger portion of the proposed sum will be raised by a tax on "excess" earnings of corporations if the plan goes through. However, as the estimated deficit of the Treasury for the fiscal year 1918 is $300,000,000, it seems certain that before any scheme for raising additional revenue is made into law it will be so amended as to provide for revenues not in excess of the deficit. Of special interest to lumbermen is a proposed duty of 10 per cent. to be imposed on lumber, lath and shingles. The greatest increased revenue would be obtained from the profits accruing from business of individuals, partnerships and corporations, in excess of 8 per cent. a year on the capital investment, including bonds and other forms of capitalization, the proposed levy on which is 5 per cent.

Directory of Eastern Firms Handling B.C. Woods

The British Columbia Government Forest Branch of the Department of Lands has issued a directory of lumber dealers in Eastern Canada who carry stocks of British Columbia woods and of lumber wholesalers who handle British Columbia woods. The directory is published as Bulletin No. 20, and copies may be had by application to the Forest Branch or to the British Columbia Lumber Commissioner, Excelsior Life Building, Toronto. The directory is published in a very useful form, giving the name and address of each firm, the address of any of its branches, the kinds of British Columbia woods stocked or handled, the kinds of finished products in British Columbia woods stocked or handled, and the lines of which a specialty is made.

In the introduction to the bulletin, prepared by Mr. L. B. Beale, British Columbia Lumber Commissioner at Toronto, it is stated that:

The depletion in late years of the forests in Eastern Canada yielding timber suitable for construction and finish lumber has forced the building trade to look elsewhere for such lumber supplies. In the forests of British Columbia there is a supply of several woods which are of superior merit sufficient for all the needs of Canada.

Douglas fir is unquestionably the best wood for heavy construction, being of great strength and obtainable in any size. It is also highly suited for interior finish and furniture, being hard and beautifully grained.

Western Soft Pine.—This wood is almost identical in its texture and other qualities to white pine; and, under the name of Western pine, Western white pine, California white pine, and other trade names, is largely replacing that wonderful wood in the United States markets.

Western Red Cedar.—An extremely light, durable wood, unequalled for shingles and siding, and also very suitable for inside finish.

Western Larch.—A hard, durable wood, well suited for inside finish, as well as for construction purposes.

Western Hemlock.—Actually a wood of exceptional value for finish and framing, but held back by the reputation of its Eastern botanical cousin, the wood of which is in no way like that of Western hemlock. Its cheapness should invite investigation into its merits.

Sitka Spruce.—The giant of the spruces, and yields clear lumber in any width. The wood is typical of the spruce species, and is used largely for inside finish, for piano and aeroplane stock.

Engelmann Spruce.—Next to Sitka the largest of the spruces. The wood is of similar quality to that of the Eastern species, though somewhat darker in color.

Cottonwood.—The wood of the Western cottonwood is like that of its Mississippi relative. Clear lumber can be furnished in the largest sizes.

It is British Columbia's ambition to supply all the softwood needs of Eastern Canada. British Columbia is anxious that every architect, carpenter, builder, and contractor shall be acquainted with the merits of its forest products, and that every lumber dealer shall carry a small stock at least. It is engaged in a campaign to educate the consumer of wood, the home-builder, the farmer, and the manufacturers, concerning the qualities of British Columbia woods.

To assist the building trade this directory of lumber dealers handling British Columbia forest products has been prepared, and 12,000 copies are being sent to architects, carpenters, builders, contractors, and dealers. Other pamphlets describing the qualities and uses of British Columbia woods, or any information regarding the subject, may be obtained from the British Columbia Lumber Commissioner, Excelsior Life Building, Toronto.

The publication of this bulletin is one of the features of the market extension work that is being carried on by the Forest Service of British Columbia, which is endeavoring to encourage in every way possible the marketing of lumber and forest products of the province. The Forest Service is authority for the statement that British Columbia has a stand of 400,000,000,000 feet board measure of merchantable timber, and that it has a wood for every use.

British Columbia Timber Resources

Mr. Roland D. Craig, in an address before the Forestry Club at Ottawa recently referred to the forest resources of British Columbia, and in the course of his remarks stated that two-thirds of the total stand of the timber in the province is on the coast, though the area is only one-quarter of the total. In the coast region for 150 miles north of the International boundary, and including most of Vancouver Island, the forests are of the Douglas fir-cedar-hemlock type, with balsam, spruce, white pine and yellow cedar as secondary species. For the next 100 miles where the temperature is lower and the precipitation heavier, red cedar predominates, with fir occurring only at the heads of the fiords which indent the coast and where the precipitation is lower. Associated with the red cedar are hemlock, balsam, spruce and yellow cedar. On the northern coast the following species occur in order of predominance; hemlock, spruce, red cedar, balsam and yellow cedar. Though confined to a comparatively narrow range on the coast, Douglas fir forms over thirty per cent. of the stand with red cedar twenty-seven per cent., hemlock twenty-four per cent., balsam nine per cent., spruce seven per cent., yellow cedar two per cent., white pine one-half per cent., and lodgepole pine and cottonwood one-half per cent.

In the Interior Plateau region drier conditions permit a much wider distribution of the Douglas fir which extends to the north of the Grand Trunk Pacific Railway and in the southern region western yellow pine and western larch are added to the forest species. Taking the interior forests as a whole, spruce forms over forty per cent., with red cedar, balsam, fir, hemlock, lodgepole pine, yellow pine, larch, white pine and cottonwood in order of predominance. The high percentage of spruce is due to its prevalence in the northern interior and plains region.

Of the 250,000,000 acres of land in British Columbia, a very large percentage of it, sixty per cent., is estimated to be waste land from the standpoint of agriculture or forestry due either to its high altitude or to local site conditions. Of the area which is capable of producing forests, not over eight per cent. has any agricultural value. Unfortunately, the forests on a greater part of this forest land have been destroyed by fire, only 35 per cent. of the forest land carrying stands of commercial value at present. These forests reproduce well naturally, and if protected from fire will supply wood crops aggregating many times the present cut of one billion feet per annum. It is estimated that of the species suitable for the manufacture of pulp this province can supply 250,000,000 cords.

Ontario Wholesalers Organizing a Credit Bureau

A well-attended meeting of Ontario wholesalers and manufacturing wholesalers was held recently at Toronto for the purpose of discussing the advisability of forming a Credit Bureau, to handle their credit problems. Mr. A. E. Eckardt, of the R. Laidlaw Lumber Company, Toronto, was appointed to the chair, and he explained the successful results that have already been obtained in Toronto by the Lumbermen's Credit Bureau operated by the retail lumbermen of that city. This work had been so systematized that the results were as complete as they could possibly be, and he was himself of the opinion that a similar plan might be adopted by the wholesalers with great benefit. At the request of those present Mr. Eckardt described the system in detail, explaining that it involved the interchange of information on the members' ledgers. Once a month the members sent to the Bureau copies of their ledger accounts, which were tabulated by the Bureau in such a way that the important information they contain was available for all members, with the exception that special steps were taken to avoid giving to one member lists of other members' customers. When members desired information regarding particular customers, the Bureau was always in a position to furnish a report regarding the amount of his purchases and the amount of his indebtedness to the whole trade, covering a period extending back to the formation of the Bureau or to the time when the customer first began to buy. This gave a history of the customer's business methods upon which it was a simple matter for the lumbermen to decide quite safely whether to extend credit or not.

Mr. Eckardt went into this matter in full detail, showing how easily the plan was operated and what its benefits were. At the conclusion of his remarks a lengthy discussion took place, indicating that those present were strongly in favor of adopting a similar plan among the wholesalers. Previous to the meeting, all the important wholesalers and manufacturing wholesalers in Toronto had been communicated with and a large number had replied to the effect that they were anxious to have some such plan put into operation.

The result of the meeting was the unanimous passing of a resolution in favor of such a step. Another communication is being sent to the Ontario trade, telling of the result of the meeting and requesting them to indicate definitely their willingness to co-operate. When a sufficient number of letters approving the plan have been received in reply to this communication another meeting will be called for the purpose of organizing. It is expected that this preliminary work will be completed within the next few weeks and that before long a Bureau of this nature will be in operation.

Railways Ordering Many Box Cars

The National Lumber Manufacturers' Association, Chicago, Ill., in a recent trade bulletin, say:—"Activity in the general lumber market, due to the steady demand for large quantities of material for construction of new freight cars, continues strong in consequence of the placing of numerous contracts for rolling stock by railroads in all sections of the country. There also are in prospect several large freight car orders to be placed soon. The American Car and Foundry Company is in the market for approximately 2,500,000 feet of yellow pine lumber as the result of an order received from the Gulf Coast lines for 500 box cars. A contract for about 9,000,000 feet of lumber will be placed also by the Eastern Car Company, of New Glasgow, N. S., for the construction of 3,500 four-wheel box cars ordered by the Russian Government."

Forest Telephone Erection Costs

Practical Tests Show an Outlay of $27.75 for Labor and $25 for Materials per Mile

Installing lookout phone.

The duties of field officers in the employ of the Dominion Forestry Branch are very varied, and yet a fairly exact knowledge is required on their part in regard to many of their lines of work. Realizing this, the Forestry Branch last season instituted a course of instruction, in an experimental way, and it is expected that good results will be obtained. The Dominion Forest Reserves now include more than 30,000,000 acres of land in the four western provinces, and are under the charge of a permanent force of supervisors and rangers. Only a small number of these men have had any technical training. Ranger meetings were held in Alberta and Saskatchewan. At each meeting a week was devoted to instruction in the construction and use of forest telephone lines, particular attention being given to the special types of construction developed for use on the low-priced lines built for fire protection purposes.

The meetings were held on or near forest reserves, where permanent telephone construction projects were to be undertaken. The equipment consisted of a complete set of tools and materials employed in telephone construction work. Various standard instruments were shown, installed so as to provide the different forms of circuits and connections met with on forest lines, and were used during the meetings in conjunction with an actual piece of tree line to illustrate their workings. Construction methods were explained and demonstrations were given under actual field conditions, involving the building of a short piece, generally one or two miles of tree line, so arranged as to illustrate as many as possible of the problems encountered in this work. Very few of the men had ever had practical experience in these lines. In spite of this handicap some excellent results were secured.

In addition to the four meetings held in the west, similar instructions were given to third and fourth year students of the Forest School of the University of Toronto at their practice camp, on the limits of Arnold and Bell, Limited, north of Sudbury, Ont. In one case, where a comparatively small crew was used in construction work, figures were secured which give an interesting indication of the cost of construction of forest telephone lines in Ontario. The men employed had never before had any experience in this work and were quite unskilled at the commencement of the job. The clearing was very heavy and the weather was not favorable. The figures given below show only line building cost. The cost of material and transportation would have to be added to get at the complete cost of the line. Present prices for line materials run a little over $25 per mile, but normally are below $15 per mile. Transportation involves some 400 pounds of material per mile of line, and the cost, of course, varies with conditions.

In Eastern Canada telephone lines have been installed by a number of important operators, on their own limits and also by co-operative forest protection associations on the limits controlled by their members. For this reason the following figures showing the cost of telephone line building in Ontario will be interesting and valuable.

Record of Tree Telephone Line Construction Costs.

Length of Line—1¾ miles.
Width of Clearing—8 feet.
Timber:

1. Scattered large pine	¼ mile
2. Scattered Jack pine, spruce understory	1¼ mile
3. Scattered birch and poplar	¼ mile

Clearing:

1. Very dense spruce and Jack pine, 20-25 ft. high	1¼ mile
2. Scattered spruce, pine and birch, reproduction—a few large spruce and birch	¼ mile
3. Fairly open stand birch and poplar, little undergrowth—alder swamp	¼ mile
4. Open spans, no clearing	300 feet

Weather:

Cutting line—Good; some snow.
Pulling wire—Fair; snow on ground and brush.
Stringing wire—½ day cold; wet snow; blizzard. 1 day cold, wet, soft; much snow on ground and brush.

Costs:

(Wages figured at flat rate, 30 cents per hour)

1. Spotting line—3-man crew	$ 2.05 per mile
2. Clearing line—8-man crew	14.70 per mile
3. Pulling wire—5-man crew	3.20 per mile
4. Tieing in and pulling slack—3-man crew	6.20 per mile
5. Miscellaneous readjustments of improper work	1.60 per mile
	$27.75 per mile
6. Taking down and reeling up wire—5-man crew	$ 4.28 per mile

It might reasonably be anticipated that after a little more practice this cost would be reduced at least $4.00 per mile. Only under very exceptional conditions would more unfavorable conditions be encountered for straight tree line building.

* From information furnished by W. N. Miller, University of Toronto Faculty of Forestry.

Reported Embargo on Aeroplane Spruce Into England

Considerable interest has been evoked in the Pacific Coast States by the reported embargo placed upon importations into Great Britain, of clear silver spruce. During 1916 Oregon and Washington manufacturers are reported to have shipped between 20,000,000 and 25,000,000 feet of this lumber to Great Britain for aeroplane construction. It is presumed that the announcement of the proposed embargo is along the lines of the systematic business management of the war by the new British war cabinet. The official announcement received by exporters in Oregon and Washington does not state when the embargo will be effective, and there are numerous conjectures as to the actual reason for this action on the part of the British Government. In the first place it is presumed by some exporters that it is desired to check the soaring price of clear spruce, which at the beginning of the war was bringing a normal price of $25 a thousand and delivered to the United Kingdom market on a $17 freight rate. Ninety and $100 a thousand have recently been paid and the cost of delivery is $75 a thousand, and it is reported that speculators recently have been offering contracts for the current year's delivery at from $100 to $120 a thousand at the mill. Whether the British Government intends actually to prohibit importations of spruce by private shippers, beginning at some future date, or whether the announcement of the proposed embargo is merely for the purpose of bringing down the price at the Pacific coast mills to enable the current year's prices to be made on a lower basis, remains to be seen. That spruce will be needed as in the past there is no doubt, and an embargo would mean that the Government would buy the spruce direct, cutting out private shippers and speculators.

In connection with this report it is interesting to note that, as reported in the Canada Lumberman of January 15, the Cameron Lumber Company, Limited, Victoria, B.C., recently received an open order from the British Government for all the spruce suitable for aeroplane stock that they can furnish.

J. B. Snowball Visits Toronto

At the meeting of the Lumbermen's Section of the Toronto Board of Trade on January 19th Mr. J. B. Snowball, of Chatham, N. B., was present and gave an interesting talk in regard to several matters of interest to lumbermen. Mr. Snowball had attended the annual meeting of the Canadian Forestry Association at Ottawa and reported that this meeting had been unusually interesting and important. Much of the time had been taken up with a discussion of the white pine blister rust. Mr. Snowball told of the work being done in New Brunswick to classify the Crown lands in order to provide for better control of logging operations and of settlement, so as to make sure that land unfitted for settlement should not be taken up for agricultural purposes, and to provide for the best use of all kinds of land in the province. He also referred to the pulpwood situation in New Brunswick, saying that far too much pulpwood was being exported to the United States. In his opinion they should manufacture as much as possible of their pulpwood in New Brunswick. It was supposed, according to the law, that all the exported pulpwood came from granted lands, but he was afraid that this was not the case and that large quantities were exported which should not be.

A Book Wanted on Sawmill Construction

A reader of the Canada Lumberman makes enquiry for information regarding the construction of sawmills. We understand that he wishes to have the names of any books dealing with this subject. We have not come across any publications of this nature, but it is possible that some of our readers may know of such a book. We will appreciate it greatly if anyone who can assist us in this regard will communicate with us, so that we may send the information on to the party making enquiry.

Death of A. Barnet

The death occurred at his home in Renfrew, Ont., recently of Alexander Barnet, one of the best-known citizens of the Ottawa Valley. The late Mr. Barnet carried on business as a lumberman for many years. At different times he had several business partners, one of whom was the late Wm. Mackay, of Renfrew, and another the late Peter White, of Pembroke. For a number of years he had extensive interests in British Columbia.

The late Alexander Barnet was born in the County of Renfrew on February 25th, 1840. As a boy of 15 he went to work as a lumberman and followed this occupation practically throughout the rest of his life. In 1860-61, he started business on his own account, operating on the Madawaska and its tributaries. In 1865 he joined with Wm. Mackay and Wm. Bannerman under the name of Barnet, Bannerman and Company, operating on the Bonnechere, on a large scale. In 1876 Mr. Barnet and Mr. Mackay bought out Mr. Bannerman and operated under the name of Barnet and Mackay until 1884. In 1869 Mr. Barnet formed another partnership with Mr. Mackie, of Pembroke, and they did business together for 19 years, manufacturing extensively for the foreign trade. During his life time Mr. Barnet operated on nearly all the waters tributary to the Ottawa River, above the city of Ottawa.

The late Mr. Barnet was president of A. Barnet and Company, Limited, Renfrew, Ont., president of the Renfrew Power Company, president of the Renfrew Textile Company, president of the Renfrew Manufacturing Company, director of the Merchants Bank of Canada, and a director of the Brunette Sawmill Company of New Westminster, B. C.

Energetic Measures to Promote U. S. Export Trade

The appointment of a number of lumber trade commissioners by the United States Government, to study market conditions abroad, is receiving unanimous support from the lumber industry in that country. The government has set aside $12,000 for this purpose, and the National Lumber Manufacturers' Association have pledged to co-operate by expending $50,000 or more in financing the investigations of experts sent out by the government. The Commissioners who go abroad will familiarize themselves in the first place with lumbering in all sections of the United States. One of them will then be assigned to the United Kingdom, France, Switzerland, Holland, and possibly Spain and Portugal, for the study of their needs in the lumber markets, together with a detailed report on the use of substitutes for wood in those countries. This commissioner will be in general charge of all the work abroad, as the British Isles are the centre of the European industry. Another investigator will be sent to the Mediterranean countries. A third commissioner will study the operations of the competitors of American lumbermen in Norway, Sweden and Finland, while a fourth will go to Russia, the fifth will go to the Germanic nations. Trade agreements among the European lumbermen, division of territory and the like will be particularly inquired into.

On the return, the investigators will again tour the United States, to which they will have made frequent and extensive reports, and will visit individual manufacturers, and advise them personally how they can operate to meet the conditions abroad. The countries to be visited import $500,000,000 to $600,000,000 worth of lumber each year, and enormous business is expected when the war ends.

Civil Engineers Commend Conservation Measures

In the report of the Conservation Committee of the Canadian Society of Civil Engineers, presented at the annual meeting held in Montreal on January 23rd to 25th, reference was made to the conclusion of a treaty whereby Canada and the United States will co-operate in the protection of migratory bird life which would prove of inestimable service to agriculture and forest production, the two chief branches of Canadian primary industry. The material importance of this measure and the utility of the insectivorous bird life which it is designed to protect might be judged from the statement based on reliable authority that the annual loss in the United States from the depredations of insects amounts to $800,000,000.

The report also urged that, in the same manner as the forest industries are now in receipt of the services of the Forest Products Laboratories in Montreal, every form of industry should be enabled to avail itself of expert assistance in the solution of its peculiar problems.

It was gratifying to record the decision of the Ontario Government to remodel its forest protective service along the most approved lines. The remarkable development of the pulp industry indicated the potential values of Canadian forests and the wisdom of affording the most efficient protection available. The work of determining the extent of the timber resources progressed steadily, surveys of British Columbia and Saskatchewan forests having been completed during the past year.

St. Pacome's Lumberman Mayor

W. Gerard Power.

For a number of years past Mr. W. Gerard Power, managing director of the River Ouelle Pulp and Lumber Company, St. Pacome, P. Q., has been honored by the citizens of St. Pacome, by being elected as their mayor. A great many of our readers, who are personally acquainted with Mr. Power in a business way will realize that the citizens of St. Pacome have done themselves an honor equal to that which they have conferred upon Mr. Power, by selecting him as their mayor. Throughout his wide acquaintanceship in the lumber business Mr. Power has a reputation for successful management and for high business ideals which cannot be excelled. The result is that the business of his company is one of the best known in the province of Quebec and one of the most progressive.

Realizing how fortunate they were in having Mr. Power to look after their municipal affairs the people of St. Pacome have again entrusted him with the duties of mayor, having elected him for the year 1917. Mr. W. Gerard Power is a son of Mr. Wm. Power, M.P., of Quebec, P. Q., who is known to lumbermen throughout eastern Canada and in Great Britain, as a member of the firm of W. & J. Sharples Regd., one of the most important and successful firms of lumber exporters in eastern Canada. Mr. W. Gerard Power, therefore, comes by his ability as a lumberman honestly. Three of Mr. Power's brothers have taken their share in protecting Great Britain against Germany, and have won honors through their efforts and sustained wounds in behalf of the great cause.

Mr. Gerard Power, during his office as mayor, has displayed abilities and progressiveness similar to those which he has shown in connection with his own business and the people of St. Pacome are to be congratulated upon again securing his services.

Manufacturers Assisting Retailers in Advertising

Co-operation among associations of manufacturing lumbermen and of retail lumbermen in the United States is becoming a strong feature of the association work in that country. An advertising campaign to be put into effect in every city of the United States where lumber dealers can be persuaded to co-operate in promoting the interests of the industry has been started by the National Lumber Manufacturers' Association, the first steps being the drawing up of a series of display advertisements for the use of retail lumber dealers' associations. One of the first points where this type of lumber advertising will be attempted will be at Detroit, where the lumbermen are to install a permanent exhibit with a trained forester in charge, to give service of all sorts to prospective builders. The first of the proposed series of advertisements emphasizes the adaptability of wood. The second will deal with the fact that it is the cheapest building material. One of the series will tell of the ease with which wood may be handled with tools. The series will consist of six advertisements devised for a six weeks' advertising campaign. Particular attention will be given in one of the series to a denial of the claim that the forests of the United States are nearing exhaustion. Properly conserved, it is declared that there is lumber enough in the country today to last for centuries.

New Methods of Kiln-Drying Hemlock

In the course of co-operative experiments which are being conducted at the forest products laboratory at Madison, Wis., by the forest service and the Northern Hemlock & Hardwood Manufacturers' Association, a rapid method of kiln-drying eastern hemlock has been developed whereby shiplap can be dried green from the saw to shipping weight in forty-eight hours, and the two-inch plank in six to eight days. One carload of shiplap and two-inch stock of various widths has already been dried in the course of the experiments. All of the material came from the kiln in excellent condition and there was practically no loss due to drying. As a result of the demonstration a large lumber company is now planning the erection of kilns to operate by this method, and it is expected that other plants operating in hemlock will also adopt it.

Help the Customer to Buy Your Stock

Simply Filling a Yard Won't Bring Trade—A "Service Department" Well Handled. Makes a Retailer a Leading Local Merchant

There is no class of retail merchants by whom greater benefits may be secured through the medium of a "service" department than the retail lumbermen. Their business lends itself more definitely than many others of this kind of persuasive effort. That this is the case has long been recognized by some of the most progressive firms in the country, but there are a great many other firms who have not availed themselves of the opportunity for promoting their own business interests in this manner to any appreciable extent. Greater progress along this line has undoubtedly been made by some of the retailers in the United States than by Canadians, and for this reason we draw attention to a number of suggestions made by the trade extension department of the National Lumber Manufacturers' Association, with this "service department" idea in view. The facts and ideas presented in the following remarks are taken from an interesting bulletin recently published by them:

It is easier to talk service than to give it. Of late there has been considerable of both.

The ultimate consumer should receive the service; the retail yard dealer, as the man in direct touch with the consumer, should give it.

The man who builds needs help in planning and in selecting his materials. If he builds wisely and well his structure will last and give satisfaction. This makes him a contented consumer, who will come back for the same materials and to the same dealer.

The average consumer does not have an intimate knowledge of building materials. The yard dealer does have this knowledge, and the service department idea is simply that he make it available in attractive form.

The Portland Cement Association maintains 150 men on the road to teach the proper use of its product. Ten thousand retail lumber dealers have the knowledge and experience to teach the proper use of wood. It simply remains for them to give this service and to let people know that their office is a forum for all that is good and helpful in "building wisely with wood."

What a Service Department Will Do for You.

It will extend your trade and make you a recognized authority and leader in your community. It will bring new customers who wish to profit by your advice. If they accept your help they will buy your materials to supply their needs.

A service department in your office will be talked about and favorably commented upon. It will furnish a basis for news items in your local paper and give you publicity.

Your own knowledge of building materials will be increased by having samples of literature and materials for comparison and examination. This knowledge, made available to your customers, helps them, and in turn helps you.

Systematized service will help you turn your stock more frequently and utilize short lengths and odd sizes. It will develop new ways for using wood and broaden the demand through the application of the fact that "there is a wood for every need."

Your service department should occupy a room set aside for the purpose. It should include samples of the building materials you handle, literature regarding their characteristics and proper use, plan books and pictures, samples of wood in the natural finish, stained wood panels, models of practical and desirable buildings, reference books on modern, up-to-date buildings of all kinds and of the materials with which they should be built.

Your service department should include your own personality and the knowledge and advice which you alone can give.

All of these things should be as free as air, with every visitor made to feel at home and under no obligations for the service received.

Printed matter is valuable only when used. There should first be a reference library of books, catalogues, bulletins, and pamphlets on materials and buildings (including plans). These should be neatly arranged on shelves and indexed or classified so as to be readily found.

Then there should be ample current literature on the many subjects of interest to consumers. Whether a man is interested in chicken coops, silos, barns, or homes, a booklet should be available to put into his hands. The important information contained should be pointed out to him on the spot and he then allowed to take it home for more careful perusal.

Your prospective builder will be interested in the different kinds of wood. If you tell him that one kind is naturally durable and should be used where subject to decay, that another is not durable but because cheaper is advisable for use in protected situations, and that another has a beautiful grain which should be used for interior finish, he will want to see what these different woods look like.

Models of Buildings.

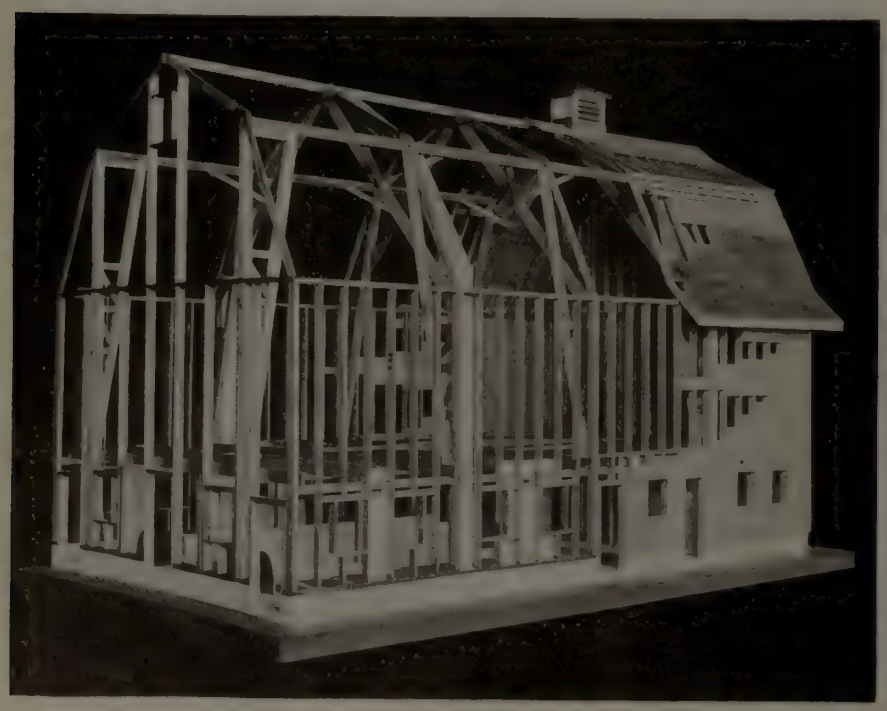
There are plans and designs of buildings without end. It is confusing for the average builder to make his selections from a voluminous plan book. A model of a building gives a quicker conception of what it is like than plans and pictures, although the latter are necessary in the actual construction work and in making modifications to suit individual tastes.

Of the average farm buildings definite types have been developed which meet all practical requirements, either with or without modifications. To illustrate these the association has prepared models for exhibits in yard dealers' offices. An idea of their character can be obtained from the barn model illustrated.

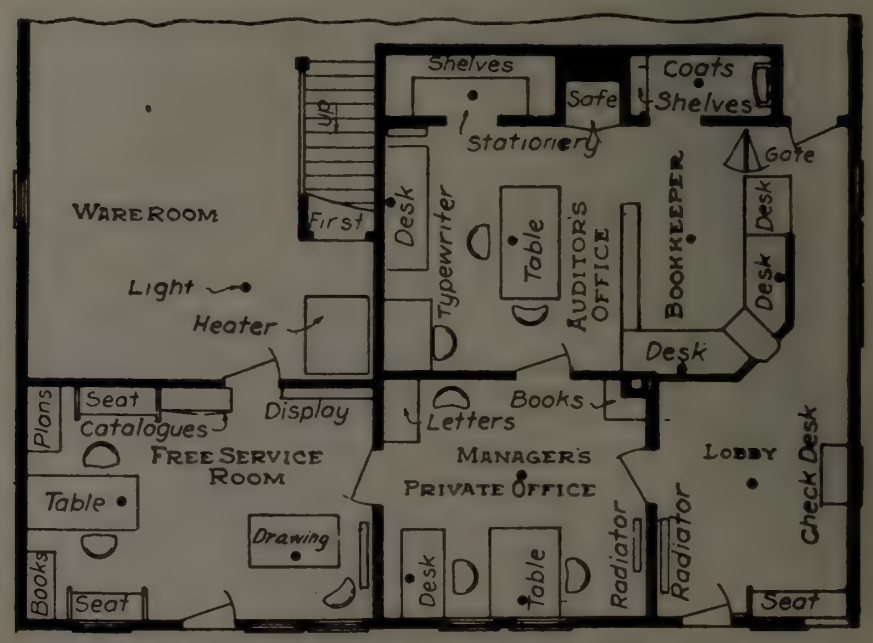
These models are made exactly to scale and embody all features of construction. The farmer can go over them detail by detail and discuss with the dealer what he needs and the changes he desires. Displaying these models before the dealer and builder results in definite orders for material, since not only the kind and sizes of wood may be determined but also the cost.

Pot Boilers.

There is something new even in the retail lumber business, and the yard dealer who is progressive enough to install a service depart-



Model barn for assisting customers to see what they need.



Floor plan of Sawyer Lumber Company office. Note service room at lower left.

ment will not only follow the new ideas already developed, but create some of his own. Several things may be suggested.

The exhibit material you have in your office can often be used outside. Your county fairs offer an annual opportunity for exhibiting wood products and distributing literature. There are also often little shows or expositions in your town where your material may be exhibited.

The average citizen likes to do more or less "tinkering" around his own home or premises. To do this he needs pieces of lumber in various shapes and sizes, and usually in short lengths. It helps to keep the yard cleared up to sort these out and make them available.

Many yards need fences, and every fence needs a gate. Every child wants a swing. Every cellar needs vegetable bins and fruit cupboards. Every barn needs milking stools and tool boxes. Every boy wants to make things in variety too great to mention. Every dealer has the lumber from which these things are made. The choice of selling plans lies between furnishing little sketches and selling material cut to the right lengths and sizes to put up at home, or of making them complete in his own yard. The dealer by putting his name on gates, benches, etc., where it is not too conspicuous and selling them at a slight increase above cost gets some good advertising.

By the Piece or Foot.

In all of this small lot selling and for any quantity under a thousand feet, charge by the piece, the board foot, or per hundred. Thirty-two dollars per thousand sounds like a lot of money, but 200 feet of flooring or 90 feet of S4S for pantry shelves at $3.20 a hundred, or 3.2c per foot, does not sound so big, and instead of a scared buyer you have a contented one.

People now days are building for permanence. To get it they often use concrete or something other than wood. They can often get just as permanent results for less money by creosoting the timber. This often permits the use of cheaper kinds which would not be at all suitable unless treated. There should be a good profit in handling creosote or other suitable preservative and explaining to consumers how they can use it to advantage. A more ambitious plan is to install a small open tank plant in your yard and creosote fence posts of farm timbers by the open tank treatment.

Don't hide your light under a bushel. It doesn't pay. Advertise your yard, your material, yourself, and your service. Become an advertiser in your local paper, but don't run stereotyped ads, nor ever repeat one. Tell people about the help you can give them. It will bring you customers.

What Wood?

What wood, what grade, and why should be talked by every progressive yard dealer. Customers should never be allowed to use the wrong wood for any given purpose. Don't let them buy timber which quickly decays for use in moist places or in contact with the ground; don't let them use too high grade or too expensive wood for protected interior situations. You can readily show them that it will be economy to spend more in some cases and less in others. One failure from poor advice or improper selection may lose a customer.

The best service you can give your customer is yourself. He wants to talk to the "boss." The best service department in the world might fail if it didn't carry a personality. Put your own enthusiasm and experience into it, back it up by the material which you have to show and sell, make every building project in your community a matter of personal pride and service. Then sell your consumers not what they think they want, but what you know they need, and business will be better.

Meeting the Discount Difficulties

By Kenneth C. Cardwell

Next to getting the business, the most important object is getting the money for goods sold. The most successful plan possible to get the reluctant customer to give up his cash in due season is to give him a cash consideration for doing it.

While there are many devices among merchants for securing prompt payment of bills, manufacturers and jobbers of mill supplies usually have but one method—that of allowing a premium or discount of 1 or 2 per cent. for payment within a limited period, usually 2 per cent 10 days. Otherwise, if the buyer avails himself of the privilege which goes with credit, and delays payment for as much as thirty days, he is supposed to pay exactly what he agreed to pay—the amount for which the goods are invoiced to him.

The plan is simple and plain, and apparently has no loopholes for the benefit of the customer who wants to eat his cake and have it, too. It is not difficult to understand, and ought to be worth complying with by a concern which is able to pay its bills at all promptly. And yet it is safe to say that there is more "funny business," as a jobber put it recently, about the discount than about any other factor in the trade of similar importance and of such simplicity.

This, like a good many other difficulties, grows almost invariably out of the not unnatural desire to please the customer and thus retain his good-will—in other words, out of competitive conditions. As it is, the average member of the trade, while knowing perfectly well that he is making an unjustifiable concession on certain occasions, is inclined to sacrifice a little cash and a little principle rather than take the chance of losing the next order.

Thus, if a customer takes his own sweet time about remitting for a lot of goods and then, after running over the allotted ten days by another ten days or so, sends a check with the discount deducted, there are relatively few who have the courage to stand by their guns and fire the check back.

It is probably true that the average manufacturer or distributor who lets customers suit themselves in the matter of paying bills and deducting the discount does so not because he wants to lose the money, but because he sees no way to avoid doing so. Admittedly it is a hard thing to turn down a perfectly good check merely because of a comparatively insignificant 2 per cent., especially when to do so means to take a chance on making the customer angry and having him delay payment indefinitely; and this, obviously, is the reason why most jobbers prefer to let the matter drop, taking out their dissatisfaction in a little soul-relieving language.

To permit a purchaser of goods literally to bully one into taking less than one's just due, by the simple process of remitting for a lesser amount, is nothing more nor less than a rather spineless backdown. And the worst part of it is that it never does any real good in the matter of keeping the customer feeling kindly toward the house. It is worth bearing in mind that people, as a rule, do not think very highly of those of whom they find it easy to take advantage.

"This is about the tenth time in the last year that this confounded little planing mill down the river has tried on this scheme of stealing the discount!" complained one of the members of a supply firm recently, while engaged in his regular task of looking over the mail and sizing up the remittances. This particular remittance, however, was one which gave him no joy when he noted the date of the invoice and then compared the amount of the check with that of the bill.

"I suppose he thinks we are just kidding when we call particular attention to our terms—2 per cent. 10 days, 30 days net," he continued, glaring angrily at the check and the invoice to which it was pinned. "He's just another one of these fellows who seem to believe that they're entitled to the discount as a matter of course, regardless of the time when they remit. It's nearly thirty days now since we mailed this invoice, and he got the goods in a day or so; and yet he has the nerve to take the discount! Take a letter, Miss Brown."

And he had the immense satisfaction of dictating a short but peremptory letter to the concern in question, succinctly referring to the firm's unvarying terms, suggesting that there must be some mistake in a check which took the discount in spite of being sent twenty odd days after the invoice, and asking a further remittance of the proper amount, the check being returned therewith. This letter, however, was not sent. The mill supply man had the satisfaction of dictating and reading it, then he savagely tore up letter and carbon, calling himself various names for his lack of nerve, and credited the invoice as paid.

His argument—for he has an argument, as every dealer has discovered who tries to point out to such customers the error of their ways—is simple and direct. He points out that the discount, after all, is a sort of universal custom, more honored in the breach than the observance, as far as the precise time of payment is concerned, and that it is rather intended as a compliment to the customer, like the candy which the grocer gives the youngster who buys some goods for the family, than as a strict payment for an early remittance.

Here and there is a jobber, however, who believes in saying what he means and sticking to it; which involves making it plain to his customers that he means what he says, in the matter of terms as well as in other respects. The fact that the discount for prompt payment is so frequently abused is the poorest reason in the world for encouraging the abuse. The allowance of a discount where it has not been earned is nothing less than a form of price-cutting which is, if anything, rather less excusable than an actual cut in price in the first place.—Mill Supplies.

The report and accounts of the Wayagamack Pulp and Paper Company for the fiscal year ended November 30 last show record earnings. These total $979,362, as against $584,373 for the previous seventeen months. The sum of $164,638 is set aside for depreciation, and, after deducting bond interest, there is a balance of $604,724, making, with the previous balance, $1,237,274. War tax and reserve absorb $540,000, the net surplus thus being $679,274.

The Canadian Government has purchased the International Railroad of New Brunswick, extending from Campbellton to St. Leonards, on the Maine border. The price is reported to have been between $2,000,000 and $3,000,000. The line, which is about 120 miles long, has been operated by the Government under a lease. Its eastern terminal taps the main line of the I. C. R., and at St. Leonards it connects with the C. P. R.

Sanitation and Hygiene for Logging

M. J. Shields, M.D., M.R.C., U.S. Army, Field Agent American Red Cross*

It is not my intention to read a technical paper on sanitation and hygiene, but to make some practical suggestions that can be carried out without a very large initial cost or entailing a continued fixed charge. In fact, I think they will, instead of being an added expense of operation, be a source of added income and profit.

The location of the camp, of course, is the first thing to consider, and in locating this site several things would have to be considered. Naturally to the operator the nearness to the timber to be logged; centrally located in regard to getting in equipment and supplies, and getting out logs to market; the amount of timber to be logged, the number of men employed, etc. All this, of course, would mean that a camp to this location would remain either a short period or a long time, and the older and larger the camp at an unsanitary location the more unsanitary it becomes, and large camps that are to last for a long period of time should be located at the best possible place for dryness and drainage. I don't think there is a logging operation or a body of timber on this coast but what some location can be found where there is a dry and well-drained spot in which the camp can be placed. And sewerage of settlements.

all the logging operations are in virgin territory, unsoiled by the

The next thing would be a pure water supply. This, with very few exceptions, can be obtained from virgin springs and mountain streams, with very small cost, for where you find trees you find water. The supply should be obtained from the source that could not be contaminated by surface drainage or sewerage from the camp itself, should be piped and delivered through hydrants from a reservoir or clean and protected tanks, where the natural pressure is not sufficient. Pure water is not only essential for the health of the human power, but of prime consideration to the vitals (flues) of the donkey engine. Water should always be analyzed to ascertain its purity from contaminating substances and in regard to scale forming contents. Practical drinking fountains can be constructed in every camp with very little cost, thereby doing away with the common drinking cup or glass, for hundreds of cases of tuberculosis and syphilis have been traced to the common drinking glass.

Small Bunk Houses Best.

The next thing I will take up is the buildings. I think the plan of small bunk houses that now very generally obtains is the best, say 12 x 16 and 9 feet at the eaves, and I think, in order to give proper ventilation, there should be two windows and only four men in a bunk house of this size. More than four, especially in winter, with the hot stove going using up the oxygen, there would not be a sufficient amount of air. Roughly, in this size of bunk house each man would have 380 cubic feet of air space, which is none too much. The kind of material, whether rough lumber or sided with shakes or shingles, is immaterial, for I think the more cracks the more ventilation. The bunk houses should be raised from the ground at least two feet, and in damp situations, of course, more. Steel bunks should always be used. These bunk houses should be placed along regular defined streets, say 20 feet wide and 15 feet apart.

In regard to the type, size, etc., of the dining-room and kitchen I have nothing to suggest, except that the windows and doors, and where the food is kept, should be thoroughly screened. I have noticed an absence of this in the fifty-odd logging camps I have visited, and think this is very important for the health of the crew.

In all large camps of long operation the growing tendency is for "home guards." The family houses would, of course, have to be built with several rooms. I think these houses should be located in a special part of the camp, away from the bunk houses, and a camp that expects to have families should, of course, have a much larger area and provide a school building.

Disposal of Garbage.

A good and profitable way to dispose of the garbage, waste food, and swill is to feed it to pigs, whose pens should be 200 yards from the camp. Other waste material should be burned or dumped at a distance from the camp. The waste food and swill that is fed to the pigs should always be kept in tightly-covered receptacles and emptied every day. Tin cans and garbage of like nature should be taken out of the camp, as they breed flies. The waste water from the kitchen, personal washing and bath house should all be carried through pipes or poured immediately into a well-constructed sink or septic tank.

In but very few camps it is hardly possible or practical to construct a sanitary sewerage system with water carriage, and the plan of cesspools and septic sink must obtain. These in case of family houses should be at least 100 feet away from the house and not at a high elevation. Cesspools for toilets for the men should be 250 feet away, dug at least eight feet deep, covered and screened to protect from flies, treated at least once a week with a layer of live lime, and I think there should be at least one of these toilets for every twenty-five men in camp. Urinals should be constructed near the bunk houses so as to take care of the night urine, as this substance is almost as bad on the ground as other dejecta. These urinals could be flushed into the cesspool very easily.

Cooks Should Be Cleanly.

Now we come to the food and the preparation. The cooks should be of cleanly habits, and a private or separate bath should be provided for the cook and his assistants, so they may bathe frequently. No cook who has tuberculosis or syphilis or is a typhoid carrier should be employed. In speaking of the latter, I cite the case of Typhoid Mary, who carried typhoid fever in every household she cooked for during seven years. In fact, I think it imperative that the cook pass a medical examination, like all the hotel and dining car cooks and waiters have to pass. This would apply to the bull cook and flunkey, also. I might add, too, that there is a number of instances where it was positively proven that syphilis has been transmitted from person to person from discharges from the mouth and throat and sores on the hands and body.

The food should be ample, wholesome, and nourishing, but I do not think too great a variety. I have noticed the tendency of loggers to eat too much starch, as in potatoes in various forms, and sugar. Along this line I have noted that rheumatism is very common in logging camps, and I think this is due largely to the excess of starch and sugar, and, of course, the dampness in the rainy season, but if the logger did not have so much of this sugar in his system he could resist the rheumatism in the rainy season better. Of course, some sugar and starch is very essential in the diet, as sugar is the great heat-producing substance and heat makes energy. Of course, the food should be well prepared, and served in clean dishes, and I prefer the small tables seating six or eight to the long table at which sixty or eighty men are crowded. Loggers eat entirely too fast; eight minutes is a long time for a logger to eat, and there should be some way to make them eat more deliberately. I think one way would be to allow conversation during meals, taking down the signs which say "No Talking."

Now, in regard to personal cleanliness and hygiene. There is not a camp, no matter how small, but what they could rig up from their own machine shop a practical shower-bath. It would simply consist of a stove with a coil and rings of pipe with holes in for the shower; also a place where the men could launder their clothes, should they so desire. Men should not be employed who are known to have tuberculosis, syphilis, or other sexual diseases. As a precaution all should be vaccinated. In some camps medical inspection is a prerequisite to employment.

Camp Should Supply Bedding.

Now, in regard to the bedding, the blankets the loggers bring should be inspected and made free from vermin before they occupy the bunk houses; and just here I think that the custom of the men furnishing their own blankets and bedding should be abandoned, and the company should furnish blankets and linen, making a charge for the same, say $1 a month, bunk house charge. I know of one company now that is furnishing the men clean sheets and towels at the small charge of 75 cents a month, which, as I understand, the men are glad to pay. It should be the duty of the bull cook, or someone specially appointed, to inspect the bunk houses daily, and have him either keep them clean or see that they were clean. The superintendent in charge of the operations should supervise this. The streets or grounds of the camp should be kept free from garbage, litter, and other refuse.

Just here a word or so about vermin in bunks and bunk houses. This is a difficult problem after they once get into a bunk house, especially old wooden bunks. Steel bunks can be scalded with boiling water or steam. There ae many so-called bug eradicators, but just as good as any is equal parts of spirits of turpentine and kerosene, used freely on the bedding, in the cracks and places where the nits or eggs are laid. The cockroach is a natural enemy of the bedbug, like the ant is of the body lice. It used to be the custom of the old-time Michigan logger, when he was on the drive and his shirt got "crummy," to take it off and throw it on the first ant hill that he came to, and when he came back the ants had entirely destroyed the lice. But how are we going to get rid of the cockroach or the ant afterwards?

Doctors Should Be Close at Hand.

In regard to education of men in logging camps about personal cleanliness and hygiene, the surgeons and the hospital associations to whom the men pay should be farsighted enough to see that several lectures by their doctors during the logging season on personal hygiene, sexual diseases, prevention of illness and accidents, and first aid, would not only be of great benefit from the humane standpoint, but be a great profit in dollars and cents by preventing illness and complications after accidents, which by contract they, the surgeons, agree to take care of. And I would like to add just here that I think it imperative that doctors and surgeons for these camps should not be

* Address delivered at the Pacific Logging Congress.

35 to 50 miles away, as they are now in a great many instances, but should be near enough to the camp so they could render immediate assistance in case of accident or illness.

I seem to hear a number saying: "All of this is very well, but how are you going to do it when the loggers are going and coming all the time, and a man is here to-day and gone to-morrow?" This condition has obtained especially this year, but I think if this education became general and was given in all camps the individual logger would get his in due course, and all camps would be benefited.

Now, further, in regard to this wandering from camp to camp and restlessness of the logger. I know where good conditions obtain there are not so many men quitting, and I think the exasperating difficulty could be solved by better sanitary conditions, having some kind or recreation and amusements, like a club, Y.M.C.A., or reading room, with reading matter and games. Motion pictures and lectures could be held in these places, and I know this would make the men more contented and thereby more permanent. I know of two camps where some of these things are carried out, and they seem to have very little trouble in keeping a full crew.

To sum up the questions to be taken up in camp sanitation and personal hygiene—first, a healthful camp site; second, a pure and sufficient water supply; third, a proper disposal of garbage, waste, and sewerage; fourth, good food, well prepared and protected by screens and attractively served; fifth, clean, sanitary bunk houses, beds, and bedding; sixth, personal hygiene and health of the crew; seventh, some kind of recreation and amusement; eighth, ample practical supply of first aid and medicines.

Machinery Company of America Catalogues

The Machinery Company of America, Grand Rapids, Mich., U.S.A., have published a catalogue of their saw and knife fitting machinery under the name of "American Blue Book, No. 25," which will be found to be of great interest and value to all mill and factory operators, especially to practically skilled saw filers. The catalogue, which consists of 240 pages with a great number of illustrations, is in a handy book size, well bound and attractively gotten up. It would not be possible to give an adequate description of the catalogue in words. Those who are interested in equipment of this type should write to the company for a copy, and we feel sure that they will find it of definite value to them in their work.

The Machinery Company of America are distributors for Baldwin, Tuthill and Bolton, Grand Rapids, Mich.; Covel Mfg. Company, Benton Harbor, Mich.; and Hanchett Swage Works, Big Rapids, Mich.; all of whose products are widely known and of the highest standard. The catalogue contains an introduction giving valuable advice to customers regarding terms of sale, methods of shipment, freight rates, etc. In connection with each of the lines illustrated in the catalogue a detailed description of all its important parts and functions is given, together with prices. The information thus included in the book is of much practical value. At the conclusion there is included a very complete index and an index of code words for telegraphic and cable use.

The Machinery Company of America publish, in addition, a wide variety of catalogues, including the following:—A 64 page catalogue of Knife Grinding Machinery; an 80 page catalogue of Filing Room Machinery suitable for saw, shingle and cooperage mills; an 80 page catalogue of Filing Room Machinery suitable for woodworking plants, and a 28 page catalogue of Filing Room Machinery suitable for distinctive metal sharpening requirements. They will be pleased to receive requests for copies of any of these from our readers.

Precious Minutes

An attractive and quite a unique booklet entitled "Precious Minutes" has been published and is being widely circulated by the International Time Recording Company of Canada, Limited, whose plant and office are at 28 Anderson Street, Toronto. How the Battle of Waterloo was lost, not by Napoleon as was commonly imagined, but by General Grouchy, who did not attach sufficient importance to minutes, is the point of the story told by the bulletin. With this moral clearly pointed out, the rest of the bulletin is devoted to references to the importance of saving time in business life; and, in conclusion, a natural allusion is made to the fact that one of the most reasonable and profitable methods of saving time is by the use of International Time Recorders.

Jas. D. Lacey and Co. Issue Attractive Calendar

Those who were fortunate enough last year to receive a copy of the beautiful calendar sent out by Jas. D. Lacey & Company, Timber Land Factors, 1750 McCormick Building, Chicago, will undoubtedly have been looking forward again to the arrival of the company's annual souvenir. This year they have sent out a calendar similar in design to last year's in many respects. A large panel-shaped photographic reproduction of a scene in the redwood forests of California is the chief feature of the calendar. The picture is taken in a grove of California redwoods and shows a wonderful specimen of this splendid tree in the foreground and several others in the background. The picture is beautifully framed in a dull gray mat with dark brown borders, and below it is attached a calendar pad for 1917.

Personal Paragraphs

Mr. John C. Lewis, of the firm of W. & J. Sharples, Reg'd., wholesale lumber exporters, Quebec, P.Q., left for England on January 20th.

Mr. J. B. Knox, of Knox Bros., wholesale lumber dealers, Montreal, has been admitted to membership of the Montreal Board of Trade. The firm represent the Victoria Lumber and Manufacturing Company, B. C., and the Okanagan Saw Mills, Ltd., Enderby, B. C.

Mr. J. B. Beveridge, general manager of the Dryden Timber and Power Company, Dryden, Ont., was recently elected a member of the Dryden Council. Mr. Beveridge's business activities have been responsible for much of the industrial advancement of the town of Dryden.

The Hon. Thos. Dufferin Pattullo has been chosen as Minister of Lands in the new administration formed by the Hon. H. C. Brewster, Premier of British Columbia. Mr. Pattullo represents the district of Prince Rupert in the provincial legislature, a section of the country containing considerable forest resources.

Mr. John J. Ross, who for several years was superintendent of the Fort Frances Pulp and Paper Company, Fort Frances, Ont., and the International Falls, Minn. Mill, of the Minnesota and Ontario Power Company, resigned recently in order to undertake expert work for the Abitibi Power and Paper Company, Iroquois Falls, Ont., where large extensions are being carried out to the newsprint and pulp departments.

Mr. W. B. Campbell, B.Sc., of the Forest Products Laboratories of Canada, Montreal, was some time ago recalled from the front, where he did a large amount of chemical engineering work in gas defence. Mr. Campbell recently lectured before the Canadian Society of Civil Engineers on "Gas Defence and Attack at the Front." The Laboratories have now six of their staff on the fighting line, and have lost one member by death there.

Lieut.-Col. Cameron M. Edwards, commanding officer of the 38th Ottawa Infantry Battalion, has been decorated by H. M. King George with the Distinguished Service Order. The honored officer is a prominent lumberman of Ottawa. Before the war he was sales manager in Canada for Watson & Todd, lumber exporters. Lieut.-Col. Edwards, D.S.O., joined the Forty-third regiment at Ottawa sixteen years ago as a private and rose up to the rank of major.

Canadian Forestry Association Annual Meeting

The annual meeting of the Canadian Forestry Association was held at Ottawa on January 16th. Satisfactory reports for the year 1916 were presented. Hon. Sidney Fisher, former Minister of Agriculture, was elected president to succeed Lt.-Col. J. B. Miller, Toronto, who was added to the directorate. Mr. Gordon C. Edwards, Ottawa, was elected first vice-president, Mr. Robson Black, secretary, and Miss M. Robinson, treasurer. The only change in the territorial vice-presidents was the election of T. D. Pattullo, Vancouver, to succeed W. R. Ross. Mr. J. T. Thorne, Fort William, was added to the directorate. The patronage of his Excellency the Duke of Devonshire, Governor General of Canada, was extended to the Association for the year. The directors' report showed that the membership of the Association had been increased by 1,007 over last year's total. At the conclusion of the convention a banquet was held at the Laurentian Club.

B. C. Loggers' Annual Meeting

At the annual meeting of the B. C. Loggers' Association held at Vancouver recently, Mr. A. E. Munn was elected president for the present year. Mr. Munn is well known in Ontario, having formerly been manager of the Canada Wood Specialty Company, Orillia, Ont. Mr. W. B. W. Armstrong, formerly of Parry Sound, Ont., is secretary of the Association. The other officers elected were, vice-president, P. A. Wilson; executive committee, J. M. Dempsey, N. S. Lougheed, T. A. Lamb, A. P. Allison, M. D. Rector, J. M. O'Brien, F. C. Riley, W. L. Mack, F. R. Pendleton, W. C. McMaster.

Canadian Pulp and Paper Meeting

The fourth annual meeting of the Canadian Pulp and Paper Association was held in the Ritz-Carlton Hotel, Montreal, on Wednesday, January 31st, and was the most important and interesting meeting in the history of the Association. In addition to the business meetings, a luncheon and a dinner were held at which a number of excellent speeches were delivered. The annual meeting of the technical section of the Association was held on January 30 and 31st and several interesting papers were read and discussed.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

WANTED TO BUY Cedar Ties, also 1-in. Pine, Spruce and Basswood Culls. Apply M. Brennen & Sons Mfg. Co., Hamilton, Ont. 3-4

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Hardwood Wanted

Wanted several carloads of dry hardwood. Write, stating quality and price, f.o.b. Guelph. Address Guelph Cartage Co. 3-3

Wanted To Buy

1¼ in. or 3 in. cull, white or red pine or spruce, also edgings or slabs. Apply M. Brennen & Sons Mfg. Co., Limited, Hamilton, Ont. 2-5

Maple Wanted

Wanted several hundred thousand feet of dry 4/4 Maple for prompt shipment. Apply at once to Box 504, Canada Lumberman, Toronto, Ont. 3-6

Birch Wanted

WANTED—Ten cars of birch, No. 1 common and better, from 5 to 16/4. Quote lowest price f.o.b. cars your station or New York City. I. B. Levy, 150 Nassau Street, New York City. 3-3

For Sale–Lumber

Lumber For Sale

Spruce cull timber cut to order. Mill now sawing. Hendun Lumber Company, Limited, Haileybury, Ont. 3-4

Spruce Floats For Sale

400 pieces 6 in. and 7 in. thick, by 24 ft. and 25 ft. long, axe hewn on two sides. For quick shipment.

J. GEO. CHALIFOUR,
3-3 Quebec, Que.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
875 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal

GEO. C. GOODFELLOW,
Montreal, Que.

Lumber and Posts For Sale

A few cars of lumber consisting of Maple, Birch, Elm, Basswood, Black Ash, Spruce and Hemlock, dry. 3,000 peeled cedar posts 8 ft. long, 3 in. and up at top end. Can be shipped in February and March. Lindsay & Haliburton line G. T. R. Box 501, Canada Lumberman, Toronto, Ont. 3-3

WHITE PINE LUMBER

150,000 ft. 1 x 12 No. 1 White Pine Mill Cull
50,000 ft. 1 x 10 No. 1 White Pine Mill Cull
100,000 ft. 1 x 4 and up White Pine No. 1 Mill Cull.
200,000 ft. 1 x 4 and up White Pine No. 2 Mill Cull.
100,000 ft. 2 x 4 and up Sound Wormy White Pine
100,000 ft. 1 x 4/5 in. Sound Wormy White Pine.
100,000 ft. 1 x 4/6 in. Mill Run White Pine.
150,000 ft. 6/4 x 4 and up Mill Run White Pine
50,000 ft. 2 x 4 and up Mill Run White Pine.
DRY STOCK

The Elgie & Jarvis Lumber Company, Ltd.,
3-3 18 Toronto St., Toronto, Canada.

For Sale–Machinery

Saw Mill For Sale

Capacity 20,000 ft. per day. Will sell mill complete very cheap as building must be used for other purposes. Also extra 90 h.p. engine. All in first class condition.

The Field Lumber Company, Limited,
2-3 Field, Ont.

FOR SALE

1—Wicks Gang.
1—Ideal Engine, 13 in. x 12 in.
1—Plain Engine, 16 in. x 24 in.
1—Plain Engine, 5 in. x 7 in.
1—Boiler, 72 in. x 16 in.
1—Boiler, 54 in. x 12 in.
2—Upright boilers.
1—Cookston water heater.
Several steam pumps.

CHAS. PEDWELL,
16-t.f. McVicar, Ont.

Bargains in New Saw Mill Machinery

Immediate Delivery

1—No. 1 RODGERS LATH MILL.
Capacity 100,000 lath per day. Weight 1,400 lbs. $200.00

1 RODGERS 3-SAW GANG BOLTER.
Rips slabs up to 6-in. thick into 1½-in. bolts ready for lath mill, very fast. Weight 1,530 lbs. $200.00

1 No. 2 RODGERS LATH MILL.
Capacity 50,000 lath per day. Weight 700 lbs. $150.00

1 RODGERS MEDIUM SIZE GANG CLEAT RIPPER, STYLES. Fine for planing mills and box shook factories. Takes stock ⅜ in. to 2¾ in. Weight 946 lbs. $200.00

1 RODGER—60-IN. JUMBO EDGER.
Big bargain. Former price $695 now $250.00 Weight 7,900 lbs.

1 LINDERMAN SLAB RESAW.
Just the machine to convert slabs into lumber. Often possible to get 400 to 700 ft. of lumber from cord of ordinary slabs. Cuts 7/16 in. to 1½ in. Former price $4.75. ..... $175.00

All prices F.O.B. Muskegon, Mich.

Also a number of new Edger and Rip Saws (some inserted tooth) which we will also sell very cheap. Full description on request.

We are selling out our saw mill machinery department and consequently wish to dispose of all new machines on hand and are offering them at unprecedented prices for quick sale.

We are making complete arrangements with our successors to carry parts in stock for all above machines.

LAKEY FOUNDRY & MACHINE CO.,
3-3 Muskegon, Mich.

Machinery For Sale

Cowan No. 2 Double-Surface Planer and Matcher. Cowan Vertical Boring Machine, in excellent condition, at bargain. A. J. Lindsay, 92 Pembroke Street, Toronto. 3-6

For Sale

Portable Sawmill—Bell engine and boiler; 25 horse power; both in good condition; mill has double edger and slab saw; price $1,200. F. Taylor, 95 Duke Street, Hamilton, Ont. 3-4

Boiler For Sale

Horizontal return tubular boiler, 66 inches diameter, 15 feet long, 58—4-in. tubes, for immediate delivery.

Steel Company of Canada, Limited,
3-3 Montreal, Que.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

BAND SAWYER wants position, right hand mill preferred; 20 years' saw mill experience; first class references. Box 495, Canada Lumberman, Toronto, Ont. 2-3

BAND SAWYER wants position; thorough experience and fast man. References from big firms. Single or double cut. Box 492, Canada Lumberman, Toronto, Ont. 1-3

BAND SAW FILER wants position for the coming season. Twenty years' experience on double and single cut. Sawmaker by trade. Can take care of all kinds of saws. Best of references. Box 447, Galt, Ont. 3-4

WANTED POSITION, by a first class mechanic, 25 years' experience in charge of modern high capacity Saw Mills. Can handle any type machinery. Address first instance, Box 497, Canada Lumberman, Toronto, Ont. 2-7

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

WANTED POSITION AS SUPERINTENDENT OR FOREMAN in planing mill. Am thoroughly experienced in all lines of interior fittings, sash, doors, hardwood flooring and box making. Can estimate and do draughting. First class on blue prints. Can handle cost system, get results and cut costs. References. Box 512, Canada Lumberman, Toronto, Ont. 3-6

CHIEF ENGINEER wants position; 14 years' operating experience. Electrician and erection of steam and electrical apparatus; practical machinist. Would either take charge of plants or superintend construction, location in western part of British Columbia preferred.

Address Box 505, Canada Lumberman & Woodworker, Toronto, Ont. 3-4

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

A MALE BOOKKEEPER and typist wanted for lumber office. Apply, Box 70, Sarnia, Ont. 3-3

BRANCH MANAGER wanted for Toronto retail lumber yard and planing mill, good salary to man with necessary qualifications. Apply with references to Box 511, Canada Lumberman, Toronto, Ont. 3-3

WANTED — COMPETENT MECHANICAL DRAUGHTSMAN, one familiar with sawmill and pulpmill machinery preferred. Kindly state age, training and experience in first letter. This position is with a large concern, and offers exceptional opportunities for the right man. Box 502, Canada Lumberman, Toronto, Ont. 3-4

Business Chances

For Sale

Planing, saw and chop mill, and auto truck. 1½ ton capacity, jacks, pipe dies, vise and anvil. Everything as it is half price. Want to go West. Apply to John McCormick, Lawrence, Ont. 1-6

For Sale

Saw and planing mill, with lumber yard, and about $5,000 stock; good village and farming community in southern Ontario. Excellent railway facilities. Price $15,500.00. Box 510, Canada Lumberman, Toronto, Ont. 3-6

PULPWOOD FOR SALE

10,000 acres of choice pulpwood in Nova Scotia. Excellent shipping facilities. Will sell en bloc or would consider taking contract of ten or fifteen thousand cords of rossed wood, for shipment next year. This is a big opportunity for someone. The paper industry offers a great field, and it will be more important from now on. There is no finer tract than the one offered here, with transportation right at hand. Write for detailed information.

GRANT & CAMPBELL,
2-3 New Glasgow, N.S.

FOR SALE

Valuable Spruce Timber Lands. This is an exceptional opportunity for pulpwood. This property is situated on the Canaan River and its branches, within easy reach of navigation. The mill in connection with this property is at Coles Island, within 60 miles of St. John, at the head of navigation on the Washademoak Lake, a tributary of the St. John River. The property contains about 47,000 acres. About 15,000 freehold and 32,000 New Brunswick Government limits. This property has been exceptionally well protected and as to the freehold, has on it an exceptional spruce growth which is in excellent condition, and would produce a very large quantity of superior quality of pulpwood.

For further information and details, apply to

THE S. H. WHITE CO., LTD.,
3-6 Sussex, N.B.

Miscellaneous

FOR SALE—Five good Teams Horses, with or without harness and sleighs. All in good working condition, average weight about 1,500 lbs. each. Age from 6 to 8 years. Located at our Stables, Washago, Ont.

The Randolph Macdonald Company, Ltd.,
500 Crown Office Building,
2-3 Toronto, Ont.

Timber Limits For Sale

For sale berth 161,, Blind River waters, well situated and easy to log. 12 millions of Hemlock, 4 millions of Pine, 5 millions of Birch and Maple, and a large quantity of Ties and Cedar. Good mill here to cut stock. Drawer 67, Blind River, Ont. 2-5

Britain's Diminishing Forests

So much timber is being used for the war it is said by advocates of a government scheme for re-afforestation that if the war lasts another three years the British Isles will be entirely denuded of timber. One feature of the situation is that some pre-war sources of supply are no longer available. Fifty-five per cent. of timber imported in normal times came from Russia, Sweden and Germany, four per cent. from Norway, and 41 per cent. from France, Portugal and Spain. Since the war this country has had to rely partly on supplies from Norway and Sweden and largely on French and Portuguese supplies, and to make good the deficit from woods and forests in the British Isles.

To maintain the supply the nation is making huge inroads into its own standing timber. It is impossible to travel by rail through parts of Scotland without seeing the wholesale cutting of trees. The axe is making a clean sweep of whole woods. There are only three million acres of wooded land in the United Kingdom at the present time.

Utilization of Waste Lumber

One of the serious wastes of saw and planing mills is the short lengths of lumber and narrow strips ripped from the edges of the larger material. It is customary to sell this for firewood, or burn it in refuse burners. This is only one side of the waste.

In practically all the cities and towns of Canada for some years manual training has been taught in the schools. Thus, thousands of former pupils, now with homes of their own, are more or less capable of following up the teaching of their youth by producing the numerous articles which help to give that homelike touch to homes, and which are useful as well as ornamental.

The manual training graduate has found, however, that his ambition to make things is seriously handicapped by the difficulty and cost of securing the necessary material. To obtain short pieces of different dimensions he must either buy the entire board of each size and have them delivered, or he must have the pieces cut to the sizes required, and practically pay the price of the full length material.

This condition has discouraged the amateur cabinet-maker from applying his training. What would have developed into a hobby with many boys has been neglected, their instruction has been forgotten, the homes are bare of many novelties and much time which might be profitably employed is wasted..

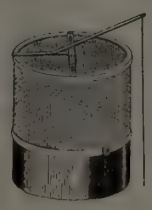
Between the supply and the consumer of these short lengths of lumber is a gap which it is possible to bridge, and some means should be found by which the small pieces could be used and the consumer obtain them at a moderate price.

Pulp Lands Better Than Wheat

Sir William Mackenzie, President Canadian Northern Railway, states that he looks forward with the greatest confidence to future traffic on his road through Northern Ontario, especially that furnished by pulp forests. "One of Canadian Northern's greatest assets in the East," he says, "is the vast pulpwood tract of Northern Ontario, where there are 20,000,000 acres of arable land unoccupied. The problem is how to get settlers. The area is north of the great mining camps of Ontario, and abounds in waterfalls. We consider one acre of good pulpwood country better in future traffic possibilities than several acres of good wheat land. There is abundance of pulpwood scattered all over our territory and no end of water power."

"CHEVROLET" CAR
For Sale
Cash Price - $450.00
As good as new, in use only four months. Owner is overseas. Information from
M c/o Box 506
Canada Lumberman
Toronto, Ont.

HARDINGE
Watchman's Clocks
Write for details
SIGNAL SYSTEMS CO.
205 Stevenson Bldg., TORONTO

Spark Arresters

Wire Cloth for Refuse Burners
Our spark arrester is substantially built and will last for years. Don't wait until a fire has visited your property, equip your mill at once.
Prices on application
Canada Wire & Iron Goods
Co. Limited
HAMILTON, ONT.

Union Lumber Co.
Limited

SAWING NOW!!!

Red and Jack Pine

can cut special bills up to 10x10-16

Union Lumber Co., Limited
701 Dominion Bank Building
TORONTO, CANADA

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Review of Current Trade Conditions

Ontario

Reports received recently from a number of the larger manufacturers in Northern Ontario indicate clearly that the reduction in output during the present winter will be heavy. At the beginning of the winter this was expected, and as woods operations progressed it has become still more apparent that there will be a considerable shortage as compared with former years. From many mills which produce steadily, we have reports that their cut will be greatly curtailed. All the manufacturers, however, are looking forward to an active market during 1917, accompanied by higher prices. This is a natural result growing out of the fact that stocks have been so well cleaned up at all points from the mill to the consumer, and the further fact that the demand for many purposes, including shell boxes and general industrial uses, is good. In spite of the higher prices that are predicted, manufacturers are not counting upon making much of a profit during 1917, as the excessive cost of production, both in the woods and at the mills, will eat up a large share of the higher prices that they expect to receive.

This is the concensus of opinion so far as we have been able to analyze it, but we have some expressions of a different nature from one or two large manufacturers. All are agreed that the demand will be good and prices high, but a few are optimistic enough to expect that the prices during 1917 will enable them to make some profit. For instance, one manufacturer says "the outlook is very promising. Stocks will be considerably less and with the increased demand and much higher prices which are now well established, 1917 should be a profitable year for the lumberman." Another manufacturer turning out pine and hemlock reports that he is now getting 20 per cent. more for his stock than he did during the first nine months of 1916.

So far as the wholesale and retail trade are concerned there is very little to say at present. Wholesalers are getting along pretty well, although those who cater to the retail trade chiefly are not doing so well as those who sell to the larger industrial plants, especially the shell box and packing case manufacturers. The retailer, however, is beginning to stir a little more actively. Indications of a better demand both in the cities for building purposes and in the country towns and districts for the farm trade are fairly promising. In Toronto, there is likely to be some improvement in the building business during 1917. Several very large undertakings are already under way, while architects report a better condition of things in connection with the general building situation. With this information in hand the retaler is now showing signs of looking about for his spring stocks. Undoubtedly he will find them high in price and higher still if he delays in making his purchases. The retailer who expects a fair amount of trade this year will be wise if he covers his requirements as soon as possible.

There is not much improvement to note in connection with the shipping situation. Railways are still unable to handle more than a small fraction of the business offered, and slow deliveries continue to be the rule. Hardwoods continue strong in all lines. A great shortage has developed in basswood and many consumers are asking for it.

Eastern Canada

Montreal wholesalers report that the trade situation at present is quiet, but fairly satisfactory. As usual, however, they are still worried by their inability to fill orders. Most of the business in progress has to do with shell and munition box production. The building trade is very quiet, but there are indications that improvement will develop in the spring. Car shortage, embargoes and severe winter weather have interferred with the movement of lumber to a great extent. Further shell box orders are expected, and the British Government is also making some enquiries for shooks, but it is not thought probable that these will result in business, as the specifications are very severe and call for the highest grade of dry lumber. Shipments to the United Kingdom continue in a small way. Shipping companies have decided that all future freight must be paid in Montreal, which will be a considerable added difficulty to the trade. An important announcement has been made by the Minister of Finance to the effect that the price for newsprint for the present year's contracts will be 2½c per lb., an advance of $10 per ton on previous contracts. It is also reported that the Government will prohibit the export of twenty per cent. of the output of all newsprint mills in Canada, and that this quantity must be sold at a fixed price to Canadian publishers. The Minister of Finance is reported to have intimated further that if necessary the Government will take over and operate a sufficient number of paper mills to supply the necessary paper for Canadian publishers.

Spruce prices at St. John, N. B., continue to advance. The English market is as firm as ever. Shipments of deals are going forward more heavily than formerly, the Admiralty loading steamers and taking large quantities. Upwards of 75,000,000 feet of deals will go forward from St. John during the next three months. It is expected that the opening of spring will find the St. John wharves bare. Spruce boards at St. John are also firmer, being worth about $20 for British and Canadian trade. For United States trade they are not bringing more than $18. All New Brunswick winter mills are now operating, but some of them have not enough logs to carry them through the winter. Lath are bringing $4.50 for 1⅝ in. and $4 for 1½ in., delivered Boston. Shingles are scarce and prices are higher. An averabe cut has been taken out in New Brunswick woods this winter and hauling is well under way. About 40,000,000 feet of logs will be taken out of Maine and Quebec this winter for St. John.

A quiet market for spruce is reported at Boston, but recent price advances have been firmly held. No wholesalers or manufacturers are expecting less than $32 base on rail shipments of frames. A firm market is expected for several weeks to come. Quotations for random are steady as follows:—2 x 3, $26; 2 x 4, $27; 2 x 6 and 2 x 7, $26; 2 x 8, $30; 2 x 10, $31 to $32; 2 x 12, $32 to $33.

A little more activity is reported in hardwoods at Boston. Offerings of birch and maple are light and are promptly taken up at good prices. The demand for quartered oak is improving. Quotations on inch firsts and seconds are as follows:—Basswood $45 to $48, plain oak, $63 to $65, quartered oak $88 to $91, maple $45 to $47, sap birch $51 to $53. The hemlock market is firm at Boston, although the demand is quiet. Good eastern clipped boards, 10, 12, 14 and 16 feet long are bringing $23. Shingle prices are firm at Boston. Good makes of white cedar extras are selling at $4.25 and clears at $3.75. Some sellers are asking $4.50 for their fancy white cedars. Higher prices are reported for lath. Most sellers are asking $5 for 1⅝ in. and $4 for 1½ in.

United States

At the beginning of 1917, the outlook in connection with the building trade in the United States is very promising. Reports from many important centres are to the effect that building permits for January will fully equal and in many cases exceed those of January, 1916. The expectation is that interest rates will be low throughout the present year; in other words, that money will be cheap and that correspondingly increased building operations are to be expected. There are other important indications of improvement in the lumber business. Among these is the car situation, which is gradually becoming less of a burden to the shippers of lumber. Although the actual improvement in the car situation is not by any means great, the volume of shipments from producing districts is on the increase. The latest figures furnished by the American railway situation show a decrease in the net shortage of freight cars from 105,527 on December 1st to 59,892 on January 1st. Railroads in the United States are coming into the market more extensively for large quantities of rolling stock, being influenced considerably by the possibility of foreign buying of railroad cars on an enormous scale. The shortage of shipping facilities for the export trade is more acute than formerly and ocean freight rates have been advancing again. An idea of the importance of this situation may be gained from the fact that a recent charter for carrying yellow pine from the Gulf to the West Coast of Great Britain was made at the rate of 560 shillings, or a little more than $133 per standard. The shortage of vessels is just as keen on the Pacific as on the Atlantic coast.

The beginning of the year, with its annual business house-cleaning, witnessed some concessions in prices on southern yellow pine. However, these reductions were not uniform and were offset by advances in other items. Generally speaking, the shipments of yellow pine are practically the same as they have been for a few weeks previous. During the past week or two, however, the volume of orders placed has shown a considerable increase, and is now well above normal, while production is below normal. North Carolina pine production has been held down by unfavorable weather. The volume of sales has been increasing steadily. Prices have been firm, but unchanged.

On the Pacific Coast the situation is very encouraging from the manufacturers' point of view. Vast quantities of high grade lumber are being used by the shipbuilding industry, and the amount of their requirements will probably increase greatly. Cargo shipments, while considerably below normal, are increasing steadily and an excellent export business is expected as soon as vessels are available.

There is a good demand for northern and Idaho white pine.

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

Sales have not been exceptionally large, but a firm market is reported, with light stocks, and higher prices are considered rather probable. The car shortage and the severe weather have interferred with shipments of white pine. The demand for northern hemlock continues strong and prices are steady. Sales of Norway pine are also good and prices are firm. During 1916 the northern pine mills of the United States shipped 200,000,000 feet more than was produced.

Hardwoods continue in good demand in all lines and shipments are increasing steadily in volume.

Great Britain

The difficulty in securing freight space for trans-Atlantic shipments from Canada to Great Britain continues to be the regulating factor in regard to the trade situation. There is very little talk in Breat Britain about business for the coming season. On the other hand, however, there is no lack of orders in Great Britain, and available stocks are being reduced steadily. Holders of stocks are content to let the trade find its own level and are quoting high prices on everything. The volume of work in progress is quite extensive enough to enable spruce to obtain its own price. Not only are spruce values firm, but they are advancing from week to week. 3 x 11 in. spruce has been sold recently at £39, £40 and even £42. 3 x 9 in. has been bringing £35 to £36 and 3 x 7 in. £32 to £33. A fair amount of business is in progress on the spot market at London. Milder weather has increased the volume of imports, and dock stocks are gradually becoming larger.

At Liverpool, the opening of the year found the trade experiencing a quiet period, calling for very little comment. One of the chief subjects of importance under discussion is the extensive restrictions in railway traffic which are expected to reduce considerably the movement of goods. At the close of the year 1916, the stocks in Liverpool in every case were less than at the close of the previous month, so far as hardwoods are concerned. In the soft woods the same situation prevailed with only a few exceptions. The stock of birch planks is reduced greatly. The active demand for birch planks of late has had the effect of reducing stocks greatly, and prices have been stiffening. Very little business is reported in spruce deals of late, either c.i.f. or spot, but the market tendency is steadily upward. Still higher prices are looked for in the near future. Small parcels arriving by liners invariably realize top figures. Stocks of spruce in the northwest ports are about 2,000 standards lower than they were a year ago. Moreover, the imports will fall away between now and April and even a moderate consumption will certainly produce higher prices. At Manchester, spruce is very firm and apparently will show further advances. There is very little stock on the quay. Prices are ranging from £31 10s for scantlings to £35 for 9 inch. Stocks of 3 x 11 in. and 2½ x 7 in. are very scarce and are bringing high prices.

At Glasgow the opening of the New Year found values firmly established at their highest level since the beginning of the war, in fact the highest in the history of the trade. The indications are that the demands from shipbuilding sources during 1917 will be on a much larger scale, on account of special steps being taken to increase the construction of merchant craft. Everyone is expecting much higher prices for spruce, though the recent rapid upward movement is not expected to maintain its pace. There is no real scarcity of stocks, except in the broader widths. The trend of values will probably be regulated a good deal by the nature of the demand. Imports are likely to continue on a small scale.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Montreal Business Steady

Montreal, January 26.—(Special to the Canada Lumberman.)—All things considered, the lumber trade is in fairly good shape. "It is," said a wholesaler, "not so much a question of orders, but how we can fill them." The main portion of the business passing is for shell and munition box account. Ordinary building is practically dead, but it is probable that, with the spring, there will be a satisfactory demand on this account. Contracts for industrial plants have recently been placed, and it is reported that architects are drawing plans for a considerable number of extensions.

The movement of lumber has been interfered with by car shortage, embargoes, and the wintry weather. The railway yards are congested with traffic, which, however, is likely to be relieved owing to the cutting down of the ordinary passenger service.

Further shell box orders are expected, and it is also stated that the British Government is in the market for shooks, although in the light of past experience it is problematical whether any Canadian manufacturer will be willing to take contracts. The specifications are extremely stringent, and call for the very highest grade of dry lumber, which is exceedingly difficult to secure at present and is very high in price.

Some exporters are still shipping to the United Kingdom by way of the winter ports. The shipping companies have decided that all freight must for the future be paid in Montreal. This has been the custom in some other lines, but is now to be made universal, and will, of course, include lumber. This involves considerable financing on this side, and increased clerical work, and will add to the already heavy difficulties of this section of the lumber trade.

The pulp and paper situation is still very good. The stocks of sulphite are low, while the demand is as urgent as ever. Ground wood is also in request. There are reports of further projects during the present year, and also that a very large number of digesters are under order for existing concerns. The production of newsprint will be considerably increased in 1917, and, while there are those who predict a shortage as compared with home and foreign requirements, others believe that the apex of consumption has been reached, and that the building of a large number of new mills is not needed, and will tend to a reduction in prices. A considerable quantity of new production will come into the market this year.

The statistics for 1916 show that the exports of pulp and paper made almost continuous advances, and that the totals are away ahead of any previous figures, having more than doubled since 1910. October was the best month for sulphite; November for ground wood and newsprint. Indications point to a sustaining of this foreign demand for Canadian supplies during the current year.

Spruce Prices Still Advancing at St. John

St. John, N.B., January 24; (Special to the Canada Lumberman): The last two weeks have seen no cessation in the stiffening of the price for spruce. The English market is still as firm as ever. Shipping of deals is going along in better shape than at any time during the last two months. The Admiralty are now loading steamers, and large quantities of deals are moving from the wharves. It is said that upwards of seventy-five millions of deals will go forward from St. John during the next three months. These will not be all city cut stock. In fact, the major portion will be portable mill stock from country surrounding St. John. Large quantities of this stock are being sawn, and many more cuts would be taken out were mills available to saw them, it being very unprofitable for each farmer to purchase a mill for his individual account. The quantity of deals on hand today at St. John would not exceed over 25,000,000 feet, and these are fast being shipped out. This will leave the wharves bare when spring arrives, and should leave plenty of open space for spring sawing.

The spruce board market is also feeling the benefit of the advance and boards are today very scarce and are said to be worth $20 at St. John. This is for British and Canadian consumption; while for American market they would not leave over $18 on cars at St. John. No reduction has been made in the base price of spruce at Boston and no change is likely to take place for some time to come. All the winter mills are now running and cannot supply the market. Some mills have only a limited supply of logs and will not be able to run full all the winter through. Narrow spruce plank 2 x 4 in. and up, is bringing $21 at mills, on a 16c freight rate to Boston. All the stocks of cull lumber at St. John have been purchased and are being shipped out as quickly as possible, mostly for munition factories for boxing purposes.

The last two weeks have seen a heavy fall of snow in the northern part of New Brunswick and the lower or southern part of Quebec, where logging is done largely for the St. John market. An average cut has been yarded to date. Hauling is now in good progress. About 40,000,000 logs are being cut in Maine and Quebec for St. John, as follows:—

	Feet
Stetson Cutler and Company	23,000,000
Randolph and Baker	5,500,000
Murray and Gregory	7,000,000
Sundry lots	3,000,000

Laths are still steady at $4.50 per M. for 1⅝ in. and $4.00 for 1½ in. delivered Boston.

Shingle stocks are still depleted at St. John, there being positively

KLIM
SPELL IT BACKWARD
PURE SEPARATED MILK
IN POWDER FORM
FOR ALL COOKING
WHERE MILK IS NEEDED

The Modern Milk

IN POWDER FORM

Ideal for Camp use, because it will not freeze; light to carry, quarter the weight of canned milk; keeps until used; no waste at all.

For these, and other reasons, it is known all over Canada as

THE LUMBERMAN'S MILK

Pure and Genuine—See Government Bulletin No. 257 on MILK POWDER
Used by Canadian Government for Soldiers in Camp and Barracks

A postcard will bring a sample and complete directions for use. Two Dollars will bring a trial ten pound tin, making ten gallons

For sale by All Wholesale Grocers

CANADIAN MILK PRODUCTS LIMITED

Head Office: Mail Building, Toronto. Montreal Office: 508 New Birks Building.

Plants in Ontario: Brownsville, Belmont, Burford, Hickson.
W. H. Escott Company, Limited, Winnipeg, Regina, Calgary, Edmonton.
Kirkland & Rose, Vancouver, B.C.

BOX MACHINERY

Horizontal Slab Resaws
Vertical Resaws

Every Canadian Lumber and Box Manufacturer should have a copy of Mereen Johnson's latest catalog.

Keep posted on the latest developments in the BOX MACHINERY line—also HORIZONTAL SLAB RESAWS for working up slabs, edgings, etc., into box lumber, lath or other marketable stock.

The Mereen Johnson Machine Co.

MINNEAPOLIS, MINN., U.S.A.

MANUFACTURERS OF:

Hopper Feed Box Board Resaws, Vertical Resaws, Automatic Box Board Squeezers, Box Board Matchers, Hand Hold and Recessing Machines, Bottle Box Groovers, Equalizers, Trimmers, Gang Cleat Saws, Cut Off and Rip Saw Tables, Horizontal Slab Resaws, Box Board Edgers and Trimmers, etc.

no extras and clears at all, and only a limited amount of lower grades. Prices are higher for extras and clears than they have been for years.

This quantity of logs may be exceeded if the winter is favorable. Logs will surely cost more than they did a year ago. Labor has been more scarce than anticipated and wages have been higher, while the quantity produced is less than formerly for the same number of men.

Greater Production Required to Meet France's Lumber Requirements

Montreal, January 25; (Special to the Canada Lumberman):—The Montreal Chambre de Commerce have had under consideration a report by the committee for the extension of commerce dealing with the lumber situation and the probable demand in France. Last summer, the committee say, when the Canadian Commercial Mission visited France, there were 753 communes re-taken by the French from the Germans in which there had been 16,669 houses completely destroyed, and 29,594 so badly damaged that they needed considerable repairing. There are 242 communes still in the region of the firing line, and the enemy occupies 2,554, so that there are in all 3,549 communes having an average number of 22 houses destroyed and 40 damaged, or more than 200,000 in all. Even now in France there is need of 125,000 temporary houses.

The report of the committee further pointed out that the present stocks in the province and the present production would not supply more than a small part of this demand, and that therefore it is necessary this winter to multiply the production. It was suggested that general storekeepers throughout the province might take the initiative, during the winter, in equipping and engaging colonists and farmers, with time on their hands, to cut the necessary lumber and deliver it at the stations or at the small mills distributed throughout the country. This wood would be taken up quickly, for the demand is not limited to pulp, railroad cross ties, or pit props for mines, but is for all sorts of wood such as pine, spruce, fir, whitewood, birch, wild cherry trees, maple, beech, elm, walnut tree, and in fact all sound wood with the bark or squared by the axe. Merchants in Montreal would take this wood from the local merchants, and look after the export in the spring. The general storekeeper would only have to buy the wood from the farmer or colonist and re-sell it in Montreal.

Large Contract for Creosoted Piling

A contract for piling has recently been given by the Canadian Pacific Railway to the Vancouver Creosoting Company amounting to $150,000, which is said to be the largest piling contract ever given on the Pacific Coast. The contract calls for creosoted piles for use in the extension of one of the Canadian Pacific Railway's piers. It is probably a record contract in another respect, namely, that a large number of the piles to be delivered will be 130 feet long. This gives some idea of the size and permanence of the dock extension that is being made by the railway. The same company has received a contract for piling for the Robert Dollar wharf at Roche Point on the North Shore of Burrard Inlet, where the Robert Dollar Company have a large sawmill, operating for export trade.

Embargo on C.P.R. Shipments from the West

The Canadian Pacific Railway put an embargo into effect on January 15th upon all shipments from Western Canada to points east of Fort William. Enquiries elicited the statement from the railway company that the Dominion Government had insisted upon this step being taken in order to permit of the uninterrupted shipment of grain and flour from the prairie provinces. The duration of the embargo is still a matter of doubt, though the railway company are hopeful that it will only be a temporary measure.

A report from the C. P. R. dated January 22nd, stated that the above embargo had been removed.

The Douglas Fir Exploitation and Export Company, which was recently formed to handle the export business of most of the cargo mills in the Pacific Coast States report that they booked orders for 30,000,000 feet for export during the first six weeks of their operation, and that very few cargo mills had not signed up for membership in the organization.

A. H. Chave & Company, Ltd., recently incorporated with a capital of $50,000, have opened an office in the Dominion Express Building, Montreal. The company will carry on business as wholesale lumber merchants, particularly in hardwoods.

For the 1917-18 fiscal year the expenditure in the Quebec Lands and Forests Department is estimated at $356,000, an increase of $16,000.

The 20th annual convention of the National Hardwood Lumber Association will be held at Chicago on June 14th and 15th.

Building Construction and Estimating

At the annual meeting of the Northwestern Lumbermen's Association one of the chief events was an address by D. D. Greer, on "Building Construction and Simple Eestimating." Mr. Greer's remarks were as follows:—

The problems which we are about to discuss cover a very wide range and we are going to present them in a most elementary way in the limited time at our disposal.

It is a well-known fact that there are no fixed standards at the present time for estimating the quantity of lumber and material necessary to produce a certain building, and that in dwelling construction, each locality has its own particular customs and habits, due more to climatic conditions than to any other particular reason. A working knowledge of local conditions is absolutely essential to an estimator, in determining grades and, in many cases, size of material, style of trim, cornice construction, and other building details.

I will endeavor to confine myself to stock material, both in lumber and mill work, as the use of "stock sizes" is growing rapidly in every line, and successful contractors and builders are realizing this more and more as time goes on, particularly when time is a material part of a contract. We now have an interest in home building throughout this country that has never been equalled, and this condition is due largely to the fact that every form of publicity along these lines has been filled with building ideas and discussions. We now have many fine monthly magazines devoted entirely to the home building idea, and articles written for the general public, as opposed to the technical magazines. Every Sunday newspaper you pick up has its articles on home building and designing, and many print floor plans and a perspective drawing or photograph of the building as it will look when completed. Every manufacturer of building material fills his literature with pictures and sections of attractive buildings, and many go so far as to furnish complete building plans and material lists in order to promote the use of their products.

This publicity, as was intended, has encouraged the use of more pleasing types of architecture than we have found heretofore. So that even in our smaller cities and in the prosperous farming communities, we find very modern types of houses, far more liveable and attractive than the plain, one design buildings found in many of our older cities and communities.

This development has changed conditions for the builders and for the sellers of building materials. Once the idea of a new home or building is firmly planted in a person's mind, there seems to be no real cure, and in the great majority of cases, it is simply a question of reaching this person with an attractive idea to make a sale.

From our experience in this city, we find that the great majority of these prospective home owners have formed a specific idea of just about what they want. We get pencil drawings of the crudest sort, and we get scaled drawings in all steps of completion, cuts from newspapers, pages from building catalogs, and from this material, we have had to figure out some way to give them a reasonably close preliminary estimate of the cost of such a building to be built locally under existing conditions and at current prices, and if the preliminary figures are within their reach, it is a simple matter to settle upon a definite plan and complete the transaction. In some cases we can take off a lumber and mill bill without making any additional drawings, but in the majority of cases, we find it necessary to make a rough elevation or if the drawing is not drawn to some scale, we make a rough pencil sketch drawn to some standard scale, and from these sketches it is a simple matter to make accurate estimates.

It is a well known fact that no two estimators will make an estimate for a building in exactly the same manner unless the plans are very complete, and sizes and qualities of every kind of material are expressly indicated in the specifications, or on plans or the drawings, and so in estimating from meager plans or rough sketches considerable leeway must be allowed.

In making an estimate for the purpose of quoting a price, whether to be for a bill of lumber, or mill work, or both, it is necessary in order to "play safe" to specify exactly what is offered, as well as the price, in order to form the basis of a binding contract. Where such a list is furnished, the offer is to furnish only that particular material for the price stated, and if the party who makes the list falls short in figuring the amount of any particular kind of material required, the shortage or amount of that specific material required to complete that building must be purchased by the builder as an "extra." If the purchaser of the material is the owner of the building under construction he is not a loser in such a transaction, as he is simply paying for the actual material needed for his building. But in the case of a contractor who has agreed to deliver the building for a certain agreed price and this price was based on the price quoted on the material, the loss or shortage will fall directly on the contractor, and where the contractor has depended upon the estimator for the correctness of the

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estimate, dissatisfaction is bound to result. The other way of making an estimate is to quote a price for "all of the lumber" or other kind of material necessary to complete a certain specified building, according to the plans or specifications as furnished and agreed upon between the estimator and purchaser. In this case the estimator is bound to make up any shortage in material necessary to construct the building; that is to say, the estimator would be bound to furnish enough of each kind of material for an ordinary builder to build and complete said building with the ordinary amount of waste incidental to the use of that particular material. This is the popular form adopted by many large advertisers of building materials, and the prices quoted by them are based upon the use of plans and specifications furnished by them and accurately estimated in advance. As a rule, buildings which they offer, are of simple construction and it should be a simple matter for an estimator of ordinary means to take off a lumber and mill bill from the information given.

In order to illustrate the manner of taking off an estimate of material necessary to build a simple dwelling, it is necessary to adopt an example of a house of average construction in which the actual problems confronting an estimator occur, and for this illustration, I have selected a square type of house with full basement, first and second floor, open porch, sun porch, and a sleeping porch, and with features incidental in a modern dwelling. In order to make a better showing, we have shown the partitions and outside walls as solid black lines, and we have not shown any more working lines than is found in the average magazine article or catalog.

By making use of lantern slides the speaker showed floor plans and front and side elevation of an average house 24 x 26 feet on the foundation. Working with these slides he was able to demonstrate to the members a practical way of estimating materials. He started in by calling attention to the necessary knowledge of the kind of material which should be used in every part of the building for which an estimate is asked. He then explained that in the average dwelling house basement posts of 6 x 6 generally seven feet long are so arranged as to support 6 x 8 beams or girders so that no span is longer than eight feet, this distance varying with the load put upon them. He then explained how to arrive at the number of joists required. He explained, however, in spans of fourteen feet or more a 2 x 10 spaced sixteen inches from centre to centre is the proper size to use, but that frequently 6 x 8 were employed. In order to determine the number of joists required divide the number of feet contained in one side of the basement wall by 1¼ feet and add one joist for the first joist or starter, thus a span of 24 feet would require 18 pieces plus 1 or 19 pieces for each half of the floor space. The same method is employed to determine the number of joists on the second floor and the same principle of the length of span should determine the size of the joist. Where any projections from the main part of the house are used, such as sun parlors or porches, the same principle also applies.

The diagram shown on the screen showed provision for concrete beam filling for which common boards are used and he pointed out that in estimating this the distance around the foundation constituted the number of lineal feet required. He also called attention to the necessity of running 1 x 4 bridging through the centre of each span between each pair of joists and for this purpose it is customary to figure three lineal feet for each running foot across the span. He also touched on the importance of figuring stair stringers and a few extra pieces for framing around wellholes such as fire places, chimneys, etc.

In estimating the number of studding for outside wall it is first necessary to figure the total distance around the main portion of the house and figure one 2 x 4 for each foot. These 2 x 4's are set the same as joists being centered on sixteen inches, but in figuring one to a foot allowance has been made for doubling at the corners and for lining window openings. The same method is employed in figuring the amount of studding for inside partitions. These in most cases are cut 9 foot for downstairs partitions and 8 foot for upstairs. It is customary to use double 2 x 4's on the top of partitions and single 2 x 4's on the floor. These are known as plates so that in order to determine the number of feet of 2 x 4's required for plates the number of lineal feet around the outside walls and around the partitions upstairs and downstairs is multiplied by 3. This amount is then divided by 12, 14, 16, or 18 feet to determine the number of 2 x 4's of any of these specific legnths required.

This completes the dimension lumber with the exception of the roof. To determine the number of rafters required in the roof, the speaker stated that it was customary to space them two feet on centers and that the distance from one corner of the house to the other corner is divided by two to determine the number of rafters required to which one rafter is added for a starter. Then there is also the question of brackets to support the cornice on the main house as well as porches or sun porches. The length of these brackets vary according to the taste of the builder but are usually three feet in length, so that it takes three lineal feet for each exposed rafter end. The number required will depend largely upon the spacing, but this is usually 16 inches on centers.

Floor lining is the next item to be estimated, according to the speaker, who stated that it was customary in well constructed houses to lay the boards on the first floor diagonally so as to give strength to the house and more even foundation on which to lay the finished floor. Common boards or shiplap may be used for the purpose and the amount required is determined by squaring the floor space both upstairs and downstairs. If D. and M. lumber is used one-fifth of the surface measurement must be added in order to allow for matching. Roof surface is obtained by multiplying the length of the roof of the main house over all (cornice included) by the length of the common rafters and multiplying the result by two for both sides. Dormers and porch roofs are treated in the same manner if there are two sides and if only one side, the amount is not doubled. In estimating roofs where there is some little waste in cutting, such as in the case of a hip roof, it is well to add from 8 to 10 per cent. to actual measure to cover loss in shrinkage.

The speaker then outlined the manner in arriving at an estimate of what is required in the way of outside finished lumber such as frieze, corner boards, etc. In order to arrive at the amount of material required for this take the full measurements around the house and of the main corners and to this will be necessary to add about 30 feet to every 400 feet to cover loss in making proper joints and mitres.

Cornice material, ceiling boards, bed moulding, was indicated by the speaker to be estimated in much the same manner by the lineal foot required. To determine the number of shingles necessary one side of the roof is squared, using the length and width over all, and this is doubled in the same manner as determining the number of roof boards required. Allowing for waste in cutting 1,000 shingles to every 100 square feet should be figured. By this same method of squaring the surface to be covered the amount of siding required can be obtained. Where six-inch siding is used one-fourth is added to cover loss in lapping and making joints. The principle of squaring is also applied to rooms requiring hardwood flooring, although he stated that in using the lower grades of flooring of 1½ or 2-inch face it is necessary to add one-half to offset loss in matching and defects. Where fine, well-selected grades are selected it will not be necessary to make such a large allowance.

An Interesting Price Comparison

A unique compilation of the comparative prices of farm products and lumber has been made by an up-state lumber dealer who has a retail yard and who also has an elevator, where he buys grain from the farmers. His statistics show that in 1906 a wagon load of wheat, 50 bushels, purchased 1,200 feet of No. 1 shiplap. In 1916 the same amount of wheat purchased an average of 2,800 feet of the same class of lumber. In 1906, 50 bushels of corn bought 4,600 first grade red cedar shingles. In 1916, the same amount of corn purchased 10,220 shingles of the same grade.

Mountain Lumbermen's Annual Meeting

The annual meeting of the Mountain Lumbermen's Association was held at Nelson, B. C., recently, and the following officers were elected:—President, C. D. McNab, of Waldo, for the third term; vice-president, W. F. Lammers, of Chase, for the second term. Executive, H. H. Ross, of Waldo, C. O. Staples, of Wycliffe, G. Fred Robinson, of Nelson, L. D. Rodgers, of Golden, and the president and vice-president.

New Officer of B. C. Lumber & Shingle Association

At the annual meeting of the B. C. Lumber and Shingle Manufacturers' Limited, held at Vancouver on January 18th, the election of officers resulted as follows:—President, J. W. Hackett; vice-presidents, E. C. Knight and G. T. Belford; secretary-treasurer, R. H. H. Alexander. Board of directors, J. D. McCormick, J. Black, E. J. Palmer, D. McLeod, and A. J. Hendry.

It is reported from Vancouver that the Dominion Government will shortly let a contract for the construction of two motor ships of wooden construction, similar to those now being built in British Columbia for the merchant trade. The vessels are for trade between the Atlantic and Pacific coasts of Canada by way of the Panama Canal.

Receipts at the Crown Timber office of New Westminster, B. C., for the nine months ending December 31, 1916, amounted to over $77,000, as against approximately $61,000 during the corresponding period of the previous year.

The Brompton Pulp and Paper Company, Limited, has declared an initial dividend of 1 per cent. for the quarter, with a bonus of one-quarter of 1 per cent. The earnings for the first two and a half months of the fiscal year total approximately $335,367.

Your 1917 Food Problem

A big item—yes. Up to you to get all the information possible on good wholesome food. Flour is most important. Our product has the approbation of lumbermen everywhere. They know it is good. The best of wheat and a modern process of manufacture. Also satisfactory shipments at right prices. Write us.

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Important Forest Problems of Canada

Good Progress Made During 1916 in Fire Prevention Work, Technical Research, Investigation of Resources and Other Practical Activities.

The report of the committee on Forests, of the Commission of Conservation, presented at the annual meeting of the Commission held in Ottawa on January 16th and 17th, contained an interesting summary of forest conditions in the different provinces of Canada. After discussing the conditions in New Brunswick, which are referred to in detail in Mr. Caverhill's report, published elsewhere in this issue, the report took up the situation in Ontario, saying:—

Notable progress is to be reported in connection with the fire-protection in Ontario. Partly as a result of inquiries previously initiated, and partly as a result of the great fire disaster of last summer in the clay belt, a complete reorganization of the fire-ranging service has been announced. This work has been combined with the Forestry Branch, under E. J. Zavitz, Provincial Forester.

The problems which will confront the new organization are very real, especially in the clay belt section, where the whole combination of conditions is radically different from that existing in other parts of the country. In building up the new organization, it is highly essential that the very best men available be secured to assist the Provincial Forester, both in the head office and in the field. On any other basis the degree of success which may be anticipated will necessarily be limited.

In view of the success of co-operative fire protection in the province of Quebec, between the government, the limit-holders and the private owners, the Commission offers the suggestion that the formation of similar associations be considered by the limit-holders and by the Government of Ontario.

Referring to Quebec, the report says:—During the past year, the situation in Quebec has been very materially improved through several amendments to the forest fires act. Of these, the most important provides for lengthening the season during which permits are necessary for setting out clearing fires.

The undoubted success of co-operative forest protection will, it is to be hoped, result in the organization this winter of another association in the Quebec portion of the Upper Ottawa watershed. This action has been attempted during the past two or three years, but failed only because of the unconvinced attitude of a relatively small number of limit-holders.

Under the auspices of the Department of Lands and Forests, an attempt is to be made also to secure the organization of still other associations elsewhere in Quebec, and it is to be hoped that these efforts will, with the assured encouragement of the Provincial Government, prove entirely successful.

The importance of this work fully justifies, and in fact urgently requires, a greater degree of financial support from the provincial treasury than it has thus far received. Under the present system, the attention paid to the protection of unlicensed lands is inadequate, and there is also much to be desired in the direction of better provision for supervision and inspection of fire-ranging on licensed lands outside the two associations.

There is no material change to report in the situation in Nova Scotia. This Commission has previously advocated the appointment of a technically trained forester, and this recommendation still stands.

It is suggested that eventually, the province should embark upon a policy of reacquiring cut-over and burned-over non-agricultural timber lands, to supplement the present small area of Crown lands. In this way, and at relatively small expense, the province can gradually re-establish the basis for a comprehensive policy of forestry practice on Crown lands. The necessary legislation already exists; only the required appropriations are lacking.

The need for men trained in the theory and practice of forestry has become so urgent in the west that the University of British Columbia has decided to establish a forest school at Vancouver.

The Forest Branch has, through its own organization, made a remarkable showing in the development of new markets, both foreign and domestic, for British Columbia timber. The home market has been materially extended through the announced decision of the Canadian Government and the Canadian Pacific Railway to use Canadian timber wherever practicable. The definite adoption of this policy will be of especial value in providing an additional market for British Columbia fir in eastern construction work.

The Settlers' Permit System

The permit system of regulating settlers' clearing fires has proved an unqualified success wherever it has been given a fair trial, with a competent and adequate staff for its enforcement. It is now in effect in British Columbia, Quebec, Nova Soctia, part of New Brunswick, and in Dominion forest reserves in the west. It seems assured also for a large area in Northern Ontario.

A movement is also on foot to make it effective as to forested lands outside the forest reserves, in the provinces of Alberta, Saskatchewan and Manitoba.

It is altogether probable that the careless or reckless burning of settlers' slashings constitutes the greatest single menace to our forests today. This situation is entirely unnecessary, and it is unthinkable that it should be allowed to continue in any section of Canada where valuable forests are at stake. Experience has proved conclusively that it can be controlled at a reasonable cost without antagonizing more than a very small element of the local population, and that probably only temporarily.

The railway fire protection work, in the establishment and administration of which the Commission has co-operated with the Dominion Railway Commission, has produced remarkably satisfactory results. Under the provisions of the Railway Act, and the regulations of the Board, the railways subject to its jurisdiction have assumed full responsibility for the extinguishing of fires presumably due to railway causes. Railway fires have been reduced to a position of very minor importance, and the railways have also rendered signal service in the extinguishing of many fires, for the origin of which they were in no wise responsible.

White Pine Blister Disease

The attention of the Commission has been directed toward the menace to the young and mature white pine in Eastern Canada afforded by the pine blister disease. This is a fungus disease, which was originally imported on white pine nursery stock from Europe. It attacks only the five-needle pines, so red pine, jackpine, lodgpole pine, etc., are exempt.

This disease has already acquired a strong foothold in the New England States. Serious outbreaks have been found at hundreds of points east of the Hudson River, the situation being especially bad in Massachusetts. Lesser outbreaks have been located in most of the States in the white pine region as far west as Minnesota.

In Ontario, there is a serious infection in the Niagara Peninsula to which the vigorous attention of the Provincial Government has been directed during the past year, in co-operation with the office of the Dominion Botanist. A strong attempt is being made and must be continued for years, to prevent the spread of the disease into the great pineries of the province.

In Quebec, small infections have been found at Oka and Ste. Anne de Bellevue. Infections have been found in Northern New Hampshire, and one in Vermont within one and a half miles of the Quebec boundary. It is quite possible, therefore, that there may be additional outbreaks in the Province of Quebec. No infections have yet been found in New Brunswick, but the pines there may later be threatened by the spread of known outbreaks in Maine. No general survey of the situation in Quebec has yet been made, but the Minister of Lands and Forests has given assurance that it will be fully investigated during the coming year and vigorous action taken to prevent the spread of the disease and to eradicate any infections located.

The pine blister disease is especially dangerous to young trees, so that its serious spread would tend largely to eliminate the immensely valuable white pine from forestry calculations for the future. Since this disease has as its alternate host the gooseberries and currants, it must be attacked from this point of view as well. Not only is there the most urgent need for vigorous action by the respective provinces, but the Department of Agriculture should also be enabled to co-operate in the scouting for infections, as well as in the continuation of research work now under way.

Investigation of Forest Resources

One of the most important lines of work to which the Committee on Forests has committed the Commission is the inventory of forest resources of Canada. As a result of field work which has been under way during the greater part of the past four years, data have been collected by R. D. Craig and Dr. H. N. Whitford, as to the forest resources of British Columbia, and by J. C. Blumer as to Saskatchewan. The reports are now in process of completion, and will be published as early as possible during the coming year. The reports will be authoritative and will be of great value to the many different interests concerned with the exploitation and utilization of the forests of Canada.

The British Columbia investigation shows that out of a total

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A Trolley Line of four miles extends throughout their different yards, the largest haul being one mile. The average capacity of lumber hauled by the Jeffrey Locomotives is 600 M in 20 hours.

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area of 250,000,000 acres, there is 150,000,000 acres which, on account of altitude or soil conditions, is not capable of producing forests of commercial value. Of the remaining 100,000,000 acres which may be considered as potential forest land, 8,000,000 acres is considered to be of greater value for agricultural purposes, reducing the absolute forest land of commercial value to 92,000,000 acres, only some 33,000,000 acres of which carries merchantable timber at the present time. The balance has been burned over and is more or less restocked with young growth. The amount of timber uselessly destroyed by fire is equal to about twice the amount now standing. About three-quarters of the potential forest area has been at one time or another burned over. The young forest growth on this land will, in the course of time, add enormously to the wealth of the province and of the Dominion, if preserved. Our investigation shows that the total present stand is approximately 350,000,000,000 feet of saw material, two-thirds of which is on the coast and one-third in the interior. In addition, there is a large quantity of smaller material suitable for piles, poles, pulpwood and shingle bolts, which will doubtless bring the total stand to at least 360,000,000,000 feet. This is probably about half the total stand of saw timber in Canada.

It is expected that an investigation of the forest resources of Ontario will be begun at an early date, by Mr. Craig. Assurances have been given that in this important work the Commission may count fully upon receiving the hearty co-operation of the Provincial Department of Lands, Forests and Mines.

In connection with this study, it is proposed to start first with the investigation of pulpwood resources. This is particularly opportune, as well as of urgent importance, at this time, in view of the rapidly increasing demands upon pulpwood forests of Canada, for both home consumption and foreign export. The price of news print has increased more than fifty per cent. within a very short time. It is estimated that the available pulpwood resources of the north-eastern States will suffice for only about fourteen years' supply, at the present rate of cutting. United States pulp and paper mills are forced to depend, to a constantly increasing extent, upon Canadian supplies. It is reported that more than half the pulpwood used in the United States comes from Canada. There is also a very strong tendency toward the establishment of new pulp and paper mills in Canada, as well as for the enlargement of existing mills. Nothing seems more certain than that the drain upon our pulpwood forests will increase very rapidly, with the resulting investment of large amounts of capital in Canada, the employment of thousands of laborers, both skilled and unskilled, and the consequent stimulation of business of all kinds.

In view of the certainty of a vastly increased demand upon our forests, especially for pulpwood, it becomes imperative that we should know with some accuracy the extent of these forests, and the character and amount of supplies of various kinds which they contain. To secure such information for Ontario will be the immediate object of the proposed investigation.

Forest Research

The developments of the war have impressed upon the minds of people the vital importance of the basic industries in any intelligent plan of preparedness for either war or peace. The necessity for close co-operation between science and industry has become recognized as never before.

In Canada, it must be recognized that, on either a war or peace basis, the lumbering and pulpwood industries are essentially basic industries, that upon them depend a host of secondary industries of vital importance in the economic life of the country, and that the best utilization of the forest resources, including the development of new uses and new markets, both domestic and foreign, still offers a wide field for industrial research. A most excellent beginning has been made, in connection with such investigations, by the Forest Products Laboratories, maintained by the Dominion Forestry Branch, in co-operation with McGill University, at Montreal. Particularly valuable are the investigations of pulp and paper manufacture which promise results most important to the industry.

The situation in British Columbia appears to call at present for special consideration. That province contains approximately half the saw timber of Canada. It is estimated that the annual cut could be increased five times without impairing the productive capacity of the soil or infringing upon the capital stock. If this enormous potential wealth is to be realized upon, it is perfectly obvious that a large export trade must be developed, since the local market could not possibly absorb so much. The development of such an export trade will require not only adequate shipping transportation and improved selling organization, but a considerable amount of research as well, in order to determine scientifically the specific qualities of the forest products of the Pacific Coast, so that prospective purchasers may be supplied with concrete information as to the adaptability in regard to strength and durability, of these products for the specific demands which have heretofore been filled by woods from other sources. It is of the first importance, also, that full information be available as to the best methods of manufacture for the various purposes. Further, it is essential, in order to cultivate a market satisfactorily, that grading rules for lumber, based on scientific research, be furnished, as is being done in the United States.

Unbelievable ignorance of the physical qualities of Douglas fir exists in most of the foreign markets, and this results in limiting the use of this wood, especially in South Africa and Australia, to the cheapest and most temporary construction. In the absence of official data to the contrary, the prejudice in favor of woods to which the dealers are accustomed can be overcome only with great difficulty.

There are many other cases where scientific research may pave the way for vastly increased markets for Canada's surplus forest products. In addition to such opportunities, there may be mentioned the need for research to determine methods for the better utilization of wood waste. Under present conditions, only about one-third the solid contents of the tree is utilized in the form of lumber, the balance largely going to waste in the form of sawdust, slabs, edgings, tops and stumps. Ultimately, it should be possible, with proper methods, to use to advantage at least a considerable proportion of this waste material.

In view of this general situation, it would appear that the Research Advisory Council should consider the advisability of advocating the establishment of a forest products laboratory at Vancouver, including the question of the financial basis upon which the project should be handled.

The problems above discussed relate to the utilization of resources already existing. It is understood that the Research Advisory Council will be concerned, as well, with the advancement of investigations looking toward the scientific reproduction of our living natural resources, including the forests.

In this connection, the hope is expressed by the Committee on Forests that arrangements can be made by the Commission of Conservation, during 1917, for beginning an investigation of what technical measures are necessary to ensure the perpetuation of the vast pulpwood forests of eastern Canada. The importance of these forests in the economic life of the country has been emphasized in connection with the discussion of the proposed investigation of forest resources of Ontario. The supplementary investigation here proposed would involve a study of the effect of present methods of cutting upon the character of the forest, the amount and kind of natural reproduction, the rate of growth which is taking place, and the effect of forest fires upon the future of the forest. There is a great difference of opinion as to whether, under present methods, cut-over lands are reproducing the valuable species in potentially commercial quantities. It is of the highest importance that this question be fully investigated.

Much attention is being paid to the problem of suitable employment for returned soldiers. In this connection, the possibilities in forestry and fire protection work should not be overlooked. For many of these men, such work would be highly attractive. There would seem to be no reason why, in carrying out a plan for the establishment of vocational schools for the training of returned soldiers, provision should not be made in some way for special courses of instruction in forestry work.

Ontario Planning Soldiers' Settlements

Hon. G. Howard Ferguson, Minister of Lands, Forests and Mines, in a recent public address spoke of a plan which the Ontario Government has in mind for settling returned soldiers in Northern Ontario. It is understood that the plan under consideration, which is still only in a very preliminary form, is to settle soldiers in Northern Ontario on the community plan. A sum of about $1,000,000 would probably be appropriated for this purpose and several areas selected, probably of four townships each, making a block of twelve miles square, in the centre of which community buildings will be erected where the soldiers at first will live together until they feel themselves fitted to take up land in the adjacent sections. They would be employed at a small wage in clearing the central 200 or 300 acres, which would be kept for a demonstration farm, and in making roads from that centre and clearing a frontage along the roads. The demonstration farms will be stocked with cattle which the settlers may purchase at reasonable prices on the instalment plan. The settlement will be along the line of railways, and Government overseers will visit the settlers and advise them as to farming operations.

Lumbermen in Toronto and throughout Eastern Canada will regret to learn of the death of Edwin Parker Morden, formerly Canadian sales manager for the Cyrus C. Shafer Lumber Company, South Bend, Ind. The late Mr. Morden had his headquarters at Toronto for the past two years, and had become widely known among the trade. A few weeks ago the company decided to handle their Canadian business from the head office at South Bend and Mr. Morden moved from Toronto and took up his headquarters at South Bend, intending to make periodical visits to Canada, and to handle the business in this way and by correspondence. His death occurred very shortly after his arrival in South Bend.

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We have remaining for sale a few cars in each of the following items:

5/4 x 6 in. 10/16 ft. Mill Run White Pine
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4 x 8 in. 10/16 ft. sound wormy White Pine
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4/4 x 10 and 12 in. No. 2 Culls

Also a few cars of No. 1 and 2, 4 ft. White Pine Lath and a few cars of 32 in. Mill Run White Pine Lath.

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EDGINGS

Ontario

The McLean Lumber Company, Windsor, Ont., have increased their capital stock from $40,000 to $100,000.

The Abitibi Power and Paper Company, Iroquois Falls, Ont., will shortly commence the construction of from 60 to 100 new houses for the accommodation of their employees. A town site has already been laid out, and many houses are now completed.

The Rumford Lumber Company, Limited, has been incorporated with head office at Cochrane, Ont., and capital stock of $40,000, to carry on business as dealers in lumber and builders' supplies. Those interested are J. M. Rumford, Cochrane, Ont., and R. C. Morton, Cobalt, Ont.

The Lake Winnipeg Paper Company, Limited, has been incorporated with a capitalization of $5,000,000, and headquarters at Ottawa. The provisional directors include Duncan B. McDonnell, Winnipeg; Edward Seybold, manufacturer, and A. W. Fraser, barrister, of Ottawa. The company is to carry on a lumbering, pulp and paper business in all its branches.

The R. S. Potter Lumber Company, Limited, has been incorporated with head office at Matheson, Ont., and capital stock of $20,000, to carry on business as lumber and timber merchants, sawmill and planing mill proprietors and as dealers in timber and wood of all kinds. The provisional directors of the company are W. A. Gordon, F. A. Day and E. M. Reilly.

Robert Bury and Company (Canada) Limited, Toronto, Ont., have been incorporated to take over as a going concern the business now carried on in the city of Toronto by Robert Bury and Company, lumber merchants, and to carry on a general lumber business. The capital stock of the company is $40,000. Those interested are Robert Bury, Liverpool, England; R. Buchan, and F. M. Thompson.

The Dryden Timber and Power Company, Dryden, Ont., have just completed a finishing room and warehouse of steel and brick construction, and are now building a new beater room 60 x 90 feet, which will be occupied by the beating equipment required for the 110-inch Fourdrinier machine which is now being installed. The company's output of kraft paper will be increased by 10 tons per day in the near future. The production of pure kraft fibre pulp has recently been increased by 15 tons per day.

The Port Arthur Pulp and Paper Company, Port Arthur, Ont., has opened temporary offices in the Bell Telephone Building, Toronto, where Mr. A. G. Pounsford is in charge as manager. Mr. Pounsford recently resigned his position as safety engineer of the Ontario Pulp and Paper Makers' Association in order to take up this new position. The company will soon open permanent offices at Port Arthur. Ground will be broken for the new mill on March 15th and construction will be pushed forward as rapidly as possible. Mr. Thomas Murphy is chief engineer, a position which he formerly occupied with the Mattagami Pulp and Paper Company. Operations are now under way to clear and level the site for the plant. The Manitomac Engineering Company, Manitomac, Wis., have the contract for supplying two digesters. The buildings to be erected are:—digester building, 26 x 209 feet; workroom, 70 x 160 feet; pit room, 42 x 200 feet; bleaching rooms, 26 x 200 feet; settling tanks, 42 x 138 feet; acid room, 36 x 108 feet; boiler room, 110 x 100 feet; beater room, 80 x 165 feet; paper machine room, 72 x 230 feet; finishing room, 90 x 170 feet; shipping room, 55 x 170 feet.

Eastern Canada

J. L. Couture, lumber dealer, has been registered, with head office at Ste. Julie Station, P. Q. L. Fortin is interested.

Price and Thibault, lumber dealers, have been registered, with head office at Thetford, P. Q. A. M. Price and Jos. Thibault are interested.

Camirand & Freres, sawmill operators, Durham, P. Q., have been registered. Those interested are H. Camirand, W. Camirand, F. Camirand and P. Camirand.

The sawmill belonging to G. M. Cochrane at Fox River, N. S., was recently destroyed by fire. The mill was furnished with modern machinery and was uninsured.

O'Brien Limited has been incorporated with head office at Nelson, N.B., to carry on business as manufacturers and dealers in lumber and timber in all their branches. The capital stock is $49,000, and the incorporators are John O'Brien, John McPeake O'Brien and Joseph L. O'Brien, all of Nelson, N. B.

The Brompton Pulp and Paper Company, East Angus, P. Q., is preparing to install another electrical development three miles below the plant at East Angus, where 6,000 h.p. will be developed. The company recently ordered an additional 162 inch new printing machine, to duplicate the one they are now running.

The Donnacona Pulp and Paper Company, Donnacona, P. Q., are installing six new grinders in their groundwood department which will be in

operation by the end of February, making a battery of 18 grinders in all. An additional digester is also being installed in the sulphite department, which will be in operation by April 1st. The company will then have a sulphite output of fifty tons per day.

Mr. E. D. Leeman, of Boston, Mass., has purchased, on behalf of a United States Syndicate, some 28,000 acres of timberland in New Brunswick and all the equipment formerly owned by the A. L. Wright Lumber Company at Little River, N.B. The new company intend to operate on an extensive scale. They will build houses and stores at Little River. Modern machinery will be installed in the plant and it is also reported that at a later date the company will erect a paper and pulp mill. It is stated that the company have already made contracts for their next three years' output of lumber. Mr. Leeman will be general manager of the company at Little River.

Western Canada

W. E. Foote and J. Sutton are rebuilding their shingle mill at Trout Lake, B. C. The building is now ready for installing the new machinery, which has already been purchased.

It is reported that McCarter Bros., 424 David Street, Victoria, B. C., will rebuild their shingle mill on Rock Bay Avenue, which was recently destroyed by fire. The cost of the new mill will be $10,000.

The East Coast Sawmills Limited has been incorporated with head office at Nanaimo, B. C., and capital stock of $250,000, to carry on business as foresters, loggers, lumber and timber merchants, etc.

The Vancouver Lumber Company, Vancouver, B.C., have started construction upon the logging railroad at their Mainland Cedar Reserves, at Port Neville, B. C. About two miles of road will be built at present.

The Croyden Lumber Company, Limited, has been incorporated with head office at Fernie, B. C., and capital stock of $25,000, to carry on business as sawmill and shingle mill operators and to conduct a general lumber business.

The Aetna Iron and Steel Company, Limited, has been incorporated with head office at Victoria, B. C., and capital stock of $250,000, to carry on business among other things as lumber and timber merchants, and as manufacturers and dealers in lumber of all kinds.

The East Coast Sawmills Limited, have been incorporated with head office at Nanaimo, B. C., and capital stock of $250,000, to carry on business as foresters, loggers, timber merchants, sawmill and planing mill proprietors, and as manufacturers and dealers in wood pulp, etc.

The Clark Lumber Company has been incorporated with head office at Vancouver, B. C., and capital stock of $25,000, to carry on business as lumber and timber merchants, sawmill proprietors and to manufacture and deal in saw logs, timber, lumber and wood of all kinds.

The Robertson and Hackett Sawmills Limited, has been incorporated with head office at Vancouver, B. C., and capital stock of $300,000, to carry on business as manufacturers and dealers in lumber, shingles, lath, sash and doors and timber and wood of all kinds; also as sawmill and shingle mill proprietors.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 5th day of March, 1917, for the purchase of License X704, to cut 27,620,000 feet of cedar, fir, hemlock, balsam, spruce and pine on two areas adjoining Lot 438, Upper Powell River, Range 1, Coast district. Four years will be allowed for the removal of the timber.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 5th day of March, 1917, for the purchase of License X780, to cut 6,010,000 feet of spruce, balsam and fir on Lot 3060 and the west half of Lot 3061, Cariboo District, situated on the south shore of Hansard Lake. Three years will be allowed for the removal of the timber.

W. H. Gibson, 11432-79th Street, Edmonton, Alta., has plans under way for the erection of a lumber mill near White Court, Alta., to cost $18,000. If the C. N. R. has its track laid to White Court by July the owner will commence to build this summer, but if not, the building will be commenced later on. The capacity of the new mill will be 50,000 feet per day. No contracts have yet been awarded.

A site has been purchased by the Timberland Lumber Company, Western Trust Block, New Westminster, B.C., to erect a timber mill to cost about $200,000. The main director is J. G. Robson. The new mill will have a capacity of 100,000 feet per day and construction will start in June, 1917. A number of workmen's cottages will be erected previous to commencement of the mill. A large wharf will also be built.

The Port Clements (Graham Island) sawmill has received from the Cameron-Genoa Company, Victoria, B. C., an order for the whole of their 1917 output. The lumber is to be used chiefly for aeroplanes and shell boxes.

Mr. T. McAvity Stewart, of Montreal, and Mr. Horace Munroe, of Auburn, Me., have been elected directors of the Brompton Paper Company.

The Rotary Club of Victoria, B.C., has added its voice to the request for the establishment of a school of forestry in connection with the University of British Columbia.

Take a Look at the Pile

of heavy timbers in our yard. Note how squarely they pile and match. That's because they are all straight grained and have been seasoned evenly. Just a sample of all the lumber here. The best selected wood in the first place and the best of care in putting it in condition. It pays to use such lumber.

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White and Red Pine, Spruce, Hemlock, Banksian Pine, Birch, Maple, Dimension Cedar, B. C. Fir, Yellow Pine, Railway Ties, Fence Posts, etc.
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Prices on application

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This 38 inch 10 ply Leviathan Belt replaced a triple leather belt at 40% less cost than the best leather. It has also increased the production of the plant by eight to ten tons per day.

The Reason

LEVIATHAN has far more traction power-more pull-less slip.

" is not affected by atmospheric changes and conditions.

" can be run slacker than leather, thus putting less strain on the bearings.

" has no joints to separate or peel and its traction power exceeds that of the best leather We guarantee every Leviathan belt, or money refunded.

Why not give us a trial order and let Leviathan prove its worth? When ordering give diameter of drive pulley, diameter of driving pulley and approximate horse power to be transmitted. Immediate delivery of all sizes, 1 inch four ply to 38 inch ten ply.

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HIGH QUALITY BELTING — MAIN DRIVES A SPECIALTY

Main Belting Co. of Canada, Limited

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Gloves and Mittens

"ASBESTOL" Gloves and Mittens give you long and durable service, and, above all, they **satisfy.**

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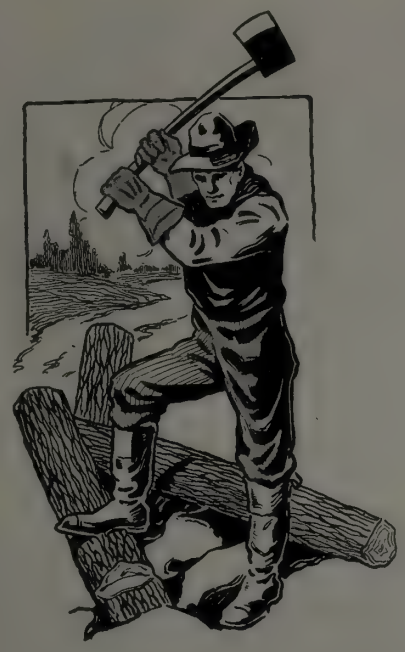

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1500 lbs.—2000 lbs.—3000 lbs.—4000 lbs.—7000 lbs. Capacities.

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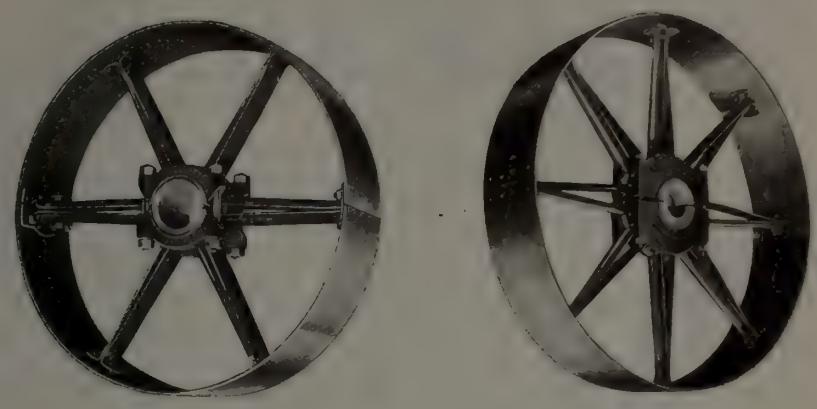

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Their advantages:—

Require no setscrews, no key-ways.

By simply changing bushing they may be used on many different-sized shafts.

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Grooveless, oval face gives perfect belt grip with minimum belt tension.

If you are making plant additions or installing new equipment where a good, easily-attached, dependable pulley is required, Keystone Pulleys will fill the bill.

We use them in our own shops and know they are all right.

The Waterous Engine Works
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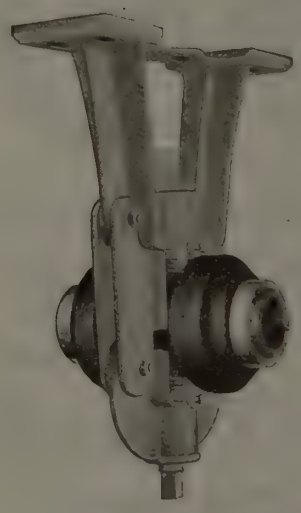
BRANTFORD, ONTARIO

What They Say



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Yours truly,

GR/MM BERLIN MACHINE WORKS LIMITED.

Chapman Double Ball Bearings

have been installed in over 3000 factories of all classes during the past fifteen years, and the above letter is one of many of a similar import, bearing testimony to the efficiency, long life, and cleanliness of the bearing. Some of these have been compiled in a booklet, "Results", which we will be pleased to send on request.

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LIDGERWOOD PORTABLE HIGH SPAR SKIDDERS

THE illustration shows a very heavy type of Lidgerwood Portable High Spar Skidder which is being extensively introduced in the firs on the Pacific Coast. This machine carries a seventy-five-foot spar mounted on a universal trunnion, which allows the spar to deflect in any direction. This permits all side strains to be carried through the guys at the top of the spar. It also gives perfect leads to the ropes at all times, no matter in which direction the logs are being skidded.

This machine is mounted on legs equipped with hydraulic jacks and straddles the track when in operation.

It is operated by a skidding engine having skidding drum, outhaul drum, slackpulling drum, changing line drum for main cable, and drum for raising spar.

It has a four-drum utility engine having drums for tightening main cable, changing lines, and spotting cars.

There is also a small four-drum engine for tightening guys.

This machine is equipped with a swinging boom loader operated by a three-drum loading and swinging engine.

The nsert in the above illustration shows the boom lowered in position for moving. This boom is raised and lowered by means of one of the drums on the skidding engine.

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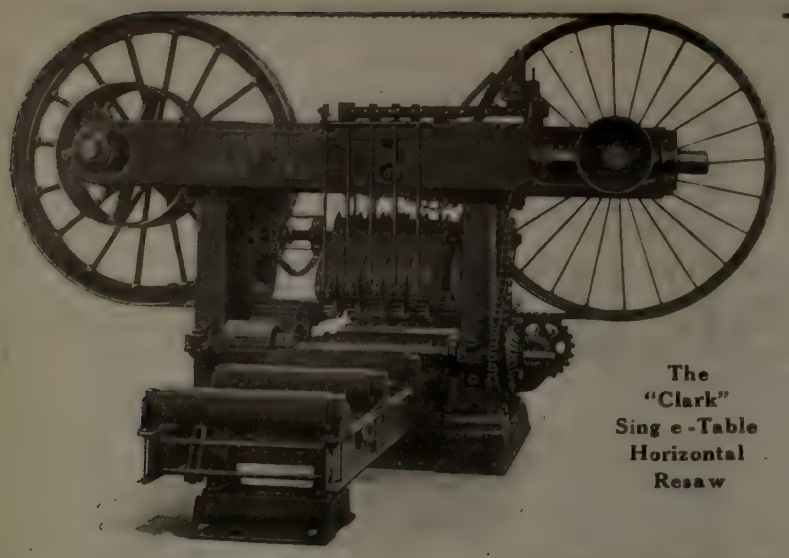

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Ever Consider Why These Machines are so Popular?

The possibility for fast and accurate production—is the answer

Some of the special features of the "Clark" Horizontal Resaw are—

The method of returning stock through machine, eliminating expensive return system—The use of the lower part of saw blade, this means the resaw sets on mill floor where every part is accessible. Entire table twenty-four feet long raises and lowers—Elimination of sawdust around wheels as all dust and bark passes through frame to conveyor below. Hand or Steam Set-works—Range of thickness from ½ in. to 14 in., made in two sizes, 66 to 84 inches.

Many other special features are described in our Resaw catalog. Mailed on request.

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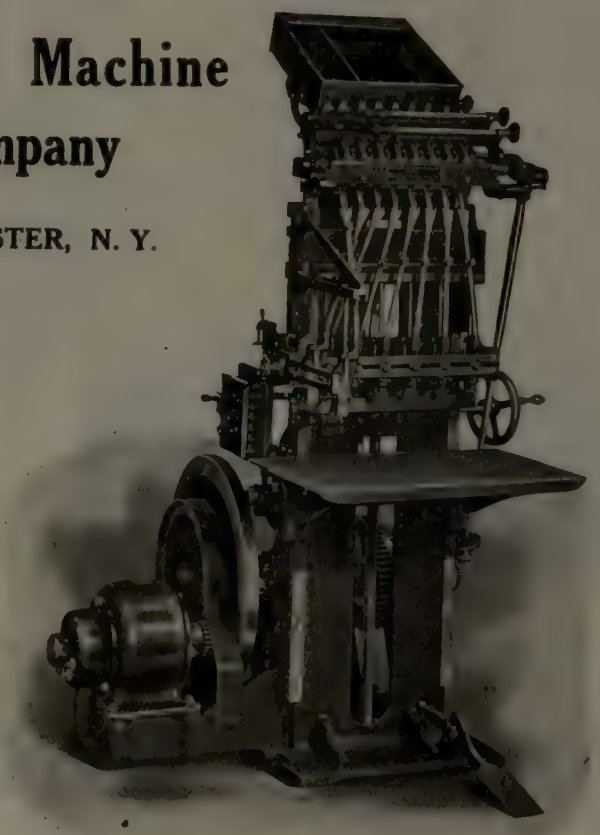

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Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

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You can get a supply of Cheap but Serviceab e STOVES for WOODS USE. Send to FREDERICTON, New Brunswick.

"NIAGARA" Cook Stove, for wood or coal (2 sizes).
"WATERLOO" Cook Stove, for wood (2 sizes).
"FAVORITE" Cook Stove, for wood (2 sizes).
"CARLETON" Cylinder Stove, for wood or coal (3 sizes).
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"TIDY" Coal Stove, room-heater (3 sizes).
"SQUAT" Coal Stove, heater (one size).

You don't have to be particular about the CLASS of fuel you use in the above wood-burning stoves—as long as it IS WOOD. That is one of the features WORTH considering. There are more, and we are anxious that YOU, Mr. Lumber-Operator, should know them.

We manufacture Wood Furnaces, too, as well as Feed-Boilers, Iron Bean-Jars, Griddles, Frying-Pans, Pots, Iron Clothes-Line Pulleys, Iron Feed-Boxes, Horse Weights, Sash Weights, Iron Pig-Troughs, and many other camp commodities.

Iron and Brass Castings. Iron Forgings.

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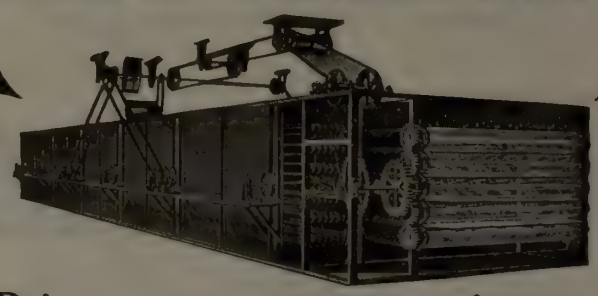

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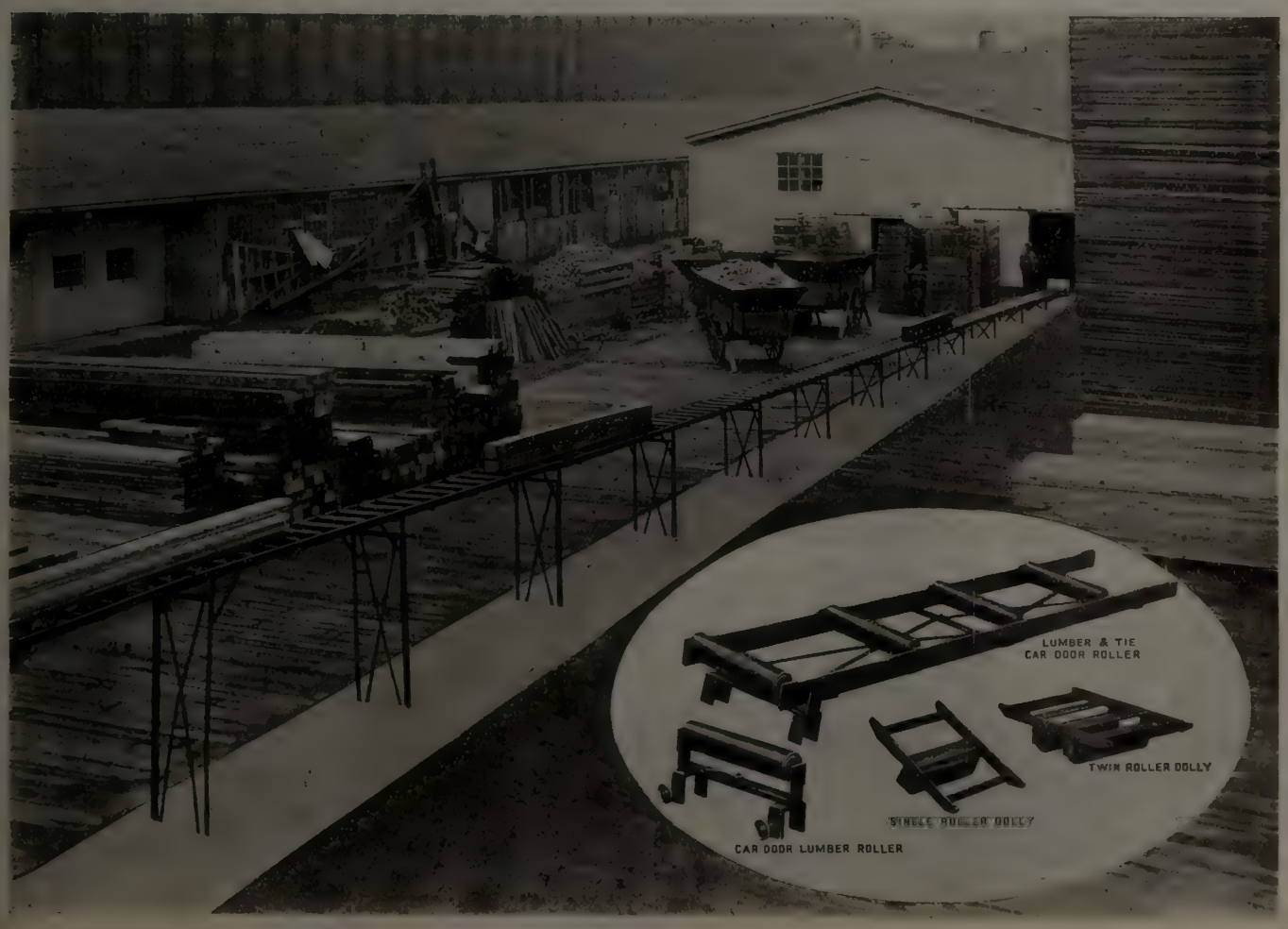

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484 Richmond Street, West, TORONTO

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TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing	35 00	36 00
1 x 12 common and dressing	38 00	40 00
1 x 10 and 12 mill cull stocks	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	37 00
1 x 8 box and common		28 00
1 x 10 inch box and common		30 00
1 x 12 inch box and common		31 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	28 00	29 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill run 1-in. and 2-in.		27 00
Spruce mill culls		23 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft.		20 00
1 x 6-in. x 9 to 16 ft.		25 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		26 00
2 x 4 to 12 in., 12 and 14 ft.		25 00
2 x 4 to 12-in., 18 ft.		28 00
2 x 4 to 12-in., 20 ft.		30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in B. C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		35 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		36 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		36 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		37 00
10x20, 18x20, up to 32 ft.		37 50
6x18, 8x18, up to 32 ft.		37 50
6x20, 8x20, up to 32 ft.		38 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain		35 00
Fir flooring, 1 x 4, edge grain		38 50
Fir flooring, 1 x 4, flat grain		30 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1 4-ft. pine lath		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath		4 25
1½-in. mill run hemlock lath		4 00
XX B. C. cedar shingles		2 60
XXX 6 butts to 2-in.		3 45
XXXXX		3 85

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	40 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1st and 2nds, 4/4	44 00
Birch, No. 1 com. and bet., 4/4	35 00
Birch, 1st and 2nds, 6/4 and 8/4	46 00
Birch, 1st and 2nds, 10/4 and 12/4.	60 00
Birch, 1st and 2nds, 16/4	62 00
Basswood, 1sts and 2nds, 4/4	45 00
Basswood, No. 1 com. and bet., 4/4.	35 00
Basswood, No. 2 and 3, common	19 00
Basswood, 6/4 and 8/4, 1sts and 2nds.	48 00
Basswood, 6/4 and 8/4, com. and bet.	40 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft Elm, No. 1 com. and bet., 4/4	35 00
Soft elm, No. 2 and 3 common	19 00
Soft elm, 6/4 and 8/4, 1 and 2	45 00
Rock elm, 1sts and 2nds, 6/4 x 8/4.	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	40 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1st and 2nds, 4/4	40 00
Hard Maple, common and better, 4/4	33 00
Hard maple, 12/4 & 16/4, 1sts and 2nds	50 00
Red oak, plain, 1st and 2nds, 4/4	62 00
Red oak, plain, No. 1 co., 4/4	43 00
Red oak, plain No. 2 com. 4/4	32 00
Red oak, plain 1sts and 2nds. 6/4 & 8/4	68 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1sts and 2nds, 4/4	62 00
White oak, plain, No. 1 com., 4/4	42 00
White oak, plain, No. 2 com., 4/4	32 00
Red and White oak, plain, 1sts, and 2nds, 5/4 and 6/4	60 00
Red and White oak, plain, No. 1 com. 5/4 and 6/4	45 00
Red and White oak, plain, No. 2 com. 5/4 and 6/4	35 00
Red and White oak, plain, 1sts and 2nds, 8/4	70 00
Red and White oak, plain, No. 1 com. 8/4	50 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	89 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	92 00
White oak, ¼ cut No. 1 common	57 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	24 00	26 00
Pine, 1-in. x 4-in. s.c. strips		26 00
Pine, 1-in. x 5-in. s.c. strips		27 00
Pine, 1-in. x 6-in. s.c. strips		30 00
Pine, 1-in. x 7-in., s.c. strips		27 00
Pine, 1 x 8 in. s.c., 12 ft. to 16 ft.		36 00
Pine, 1-in. x 10-in. M. R.		34 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in.	22 00	24 00
Pine, s.c. and bet, shorts, 1 x 5		23 00
Pine, s.c. and bet., shorts, 1 x 6		25 00
Pine, s.c. shorts, 6'-11', 1"x10"		26 00
Pine, box boards:		
1" x 4" and up, 6'-11'		20 00
1" x 3", 12'-16'	21 00	22 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	22 00	24 00
Pine, mill culls stock, 1 x 12		23 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	14 00	15 00
Red pine, log run:		
mill culls out, 1-in.	20 00	22 00
mill culls out, 1¼-in.	21 00	23 00
mill culls out, 1½-in.	21 00	23 00
mill culls out, 2-in.	23 00	25 00
mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	17 00	18 00
1"x 4" and up, 12'-16'	21 00	23 00
1"x 9"-10" and up, 12'-16'	25 00	27 00
1¼"x 7" 8-9" and up, 12'-16'	25 00	27 00
1¼"x 10" and up, 12'-16'	25 00	27 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	28 00	26 00
1 x 8 and 9 No. 2 barn	22 00	28 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Wmite Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	50 00
6/4 x 8 and up No. 1 and better	60 00
8/4 x 8 and up No. 1 and better	62 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00
No. 1 Cuts	
1 in., 8 in. and up wide	40 00
1¼ in., 8 in. and up wide	55 00
1½ in., 8 in. and up wide	57 00
2 in., 8 in. and up wide	60 00
2½ and 3, 8 in. and up wide	75 00
4 in., 8 in. and up wide	85 00
No. 2 Cuts	
1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	44 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1-in. x 4-in.	27 00
1-in. x 5-in.	27 00
1-in. x 6-in.	28 00
1-in. x 8-in.	28 00
1-in. x 10-in.	30 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00
No. 1 Barn	
1 inch	33 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	26 00 30 00
No. 1, 1, 1¼, 1½, 2-in.	26 00 30 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	24 00 25 00
Mill Culls	
Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 85
No. 2, 48-in. pine	4 50
No. 1, 48-in. pine	5 00
No. 3, 48-in. pine	4 00
Hemlock Lath 48 in.	4 00

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

S. 1 S. and 1. E.

Dimension	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4, 6, 8..	15 00	18 00	21 50	22 50
2 x 10	19 00	19 50	22 50	23 50
2 x 12	19 00	20 00	24 50	24 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH

Mountain Stock

Dimension

2 x 4, 8, 12, 14, 16	22 50
2 x 4, 10, 18, 20	24 50
2 x 6, 8 to 16	22 50
2 x 8, 8 to 16	22 50
2 x 4-6 and 8-in.; 24, 26, 28, 30, 32 ft.	30 50
2 x 10 and 2 x 12; 8-16 ft.	27 50
2 x 10 and 2 x 12, 18, 20, 22 ft.	29 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	31 50
No. 1 Common Boards	
4 inch	22 00
6 inch	24 50
8, 10, 12 inch	26 50
Mixed widths	25 50
Flooring	
4 or 6 inch No. 1	36 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	25 00
Shiplap—Finished	
6 inch	23 00
8, 10 and 12 inch	24 00
Siding	
6 inch No. 1	36 00
6 inch No. 2	34 00
6 inch No. 3	26 00
Lath	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed)	4 50

PINE—ROUGH TIMBER

3 x 6 in.; 8 to 16 ft.	28 10
3 x 8 in.; 8 to 16 ft.	25 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	28 00
4 x 10 to 10 x 10, 8 x 8, 6 x 12 in. up to 32 ft.	30 00

BRITISH COLUMBIA COAST FIR

Dimension S1S & E

2 x 4 in.; 6 and 8 ft.	21 50
2 x 4 in.; 12 and 14 ft.	22 50
2 x 4 in.; 10 and 16 ft.	23 50
2 x 4 in.; 18 and 24 ft.	24 50
2 x 4 in.; 22 and 24 ft.	25 50
2 x 4 in.; 26 to 32 ft.	27 50
2 x 10 and 2 x 12 in.; 10 to 16 ft.	24 00
2 x 10 and 2 x 12 in.; 18 and 20 ft.	26 00
2 x 10 and 2 x 12 in.; 22 and 24 ft.	27 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	29 00
2 x 14 in.; 10 to 16 ft.	29 00
2 x 14 in.; 18 and 20 ft.	31 00
2 x 14 in.; 22 and 24 ft.	32 00
2 x 14 in.; 26 to 32 ft.	34 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	25 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	26 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	27 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	28 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	30 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	28 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft.	28 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft.	29 50

FLOORING

Nos. 1 and 2, 1 x 3 in., E. G.	40 00
Nos. 1 and 2, 1 x 4 in., E. G.	39 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in., or 6 in., F. G.	31 00
No. 3, 1 x 4 in. or 6 in.	28 00
No. 3 Edge grain $3.00 per M. extra.	

SHIPLAP

B. C. Fir, 6 in.	22 50
B. C. Fir, 8, 10, 12 in.; 8 to 16 ft.	23 50
No. 2 Shiplap, 6 in.	22 50
No. 2 Shiplap, 8, 10 and 12 in.	23 50

FIR, COMMON BOARDS, S 1 S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	21 00
Common Boards, 8 to 12 in.	22 00
No. 2 Mixed widths	17 00
No. 2 Boards, 8 to 12 in.	18 00

SHINGLES

XXX B. C. Cedar	2 85

LATH

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's.	4 50
Cedar lath ⅜ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00

(Continued on page 60)

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This new catalogue is very much the most complete in its showing of Saw and Knife Fitting Machinery and Tools, that has ever been published and shows the manufacture of the three factories for which this company acts as distributor, viz.:

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BANDWHEEL, CUTTER and TOOL Grinders. KNIFE Grinders and Balances.

A Complete Line of Automatic Rip and Cross-cut Circular Saw Sharpeners

for saws from 3 to 96-in. diameter, in all types used on wood or metal sawing. Let us recommend and quote you.

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No. 1 Moulding 8/4	62 00
No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	34 - 35	21 - 23	13 - 15
5/4 to 8/4	37 - 38	24 - 25	14 - 15
10/4 to 16/4	43 - 45	31 - 33	20 - 22

RED BIRCH

4/4	45 - 47	28 - 30	14 - 16
5/4 to 8/4	46 - 48	30 - 32	16 - 18

SAP BIRCH

4/4	41 - 43	28 - 30	18 - 20
5/4 and up	41 - 43	28 - 30	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	34 - 36	23 - 25	15 - 17
Thicker	34 - 36	25 - 28	18 - 19

PLAIN OAK

4/4	50 - 52	31 - 33	19 - 21
5/4 to 8/4	52 - 54	33 - 35	21 - 23

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	51 - 53	28 - 30	18 - 20
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White pine uppers, 1 to 2 in.		98 00
Selects, 1 to 2 in.		88 00
Fine common 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	72 00	74 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	38 00	40 00
No. 1, 1 x 8	37 00	38 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10		37 00
No. 2, 1 x 8		35 00
No. 3, 1 x 12	31 00	32 00
No. 3, 1 x 10	30 00	31 50
No. 3, 1 x 8	30 00	31 00
Canadian spruce boards	25 00	27 00
Spruce, 10 in. dimension	28 00	30 00
Spruce, 12 in. dimension	29 00	31 00
Spruce, 9 in.		29 00
Spruce, 8 in. and under dimen.		28 00
10 and 12 in. random lengths, 10 ft. and up		29 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00	24 00
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	22 50	23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 00
1⅝ in. spruce laths		4 25
1½ in. spruce laths	3 80	4 00

New Brunswick Cedar Shingles

Extras	3 50	3 60
Clears		3 30
Second clears	2 30	2 40
Clear whites	2 00	2 20
Extra 1s (Clear whites in)		1 60
Extra 1s (Clear whites out)		1 50
Red Cedar Extras, 16-in. 5 butts to 2-in.		4 00
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Clear Perfections, 5 butts to 2¼		4 80
Washington 16-in. 5 butts to 2-in extra red clear		3 85

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Will automatically sharpen circular saws up to 40 in. in diameter. Is a bench machine, exceptionally well built, and thousands are in successful operation.

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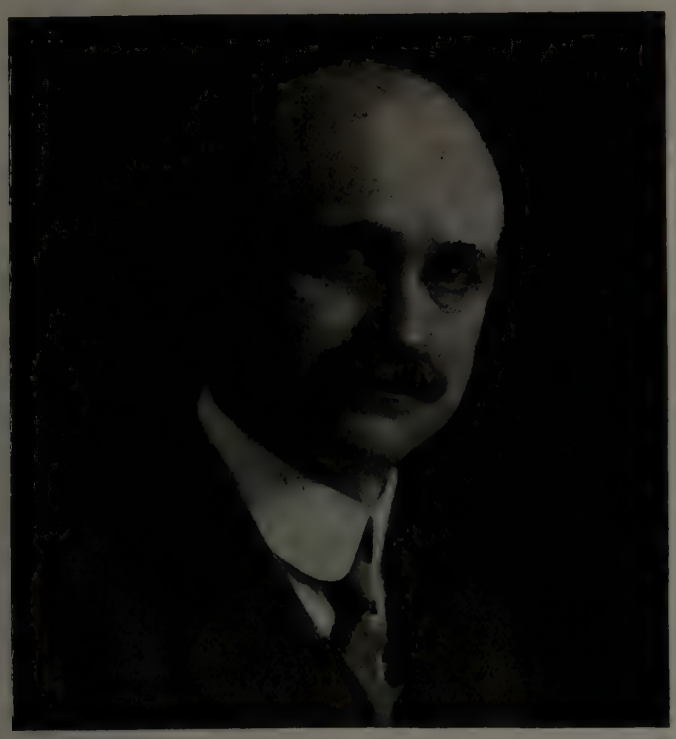

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The illustration shows the latest design of gang circular, patented by Mr. I. N. Kendall, the well-known millwright, of Ottawa. The machine illustrated takes 16 26 in. diam. 10 gauge saws—will cut cants up to 8 inches in thickness, and we furnish with it necessary saw collars for any thickness of lumber desired. It has a hollow mandrel, water-cooled saws; each saw has a separate guide; easily accessible and readily adjustable, and the bridgetree is so designed that it can be removed, the saws taken off, and a new set put on in 7 to 10 minutes. Safety fingers hung just inside the front press roll prevent a cant flying back off the saws. Lumber cut on these machines is guaranteed to come out absolutely true to size from end to end and so smooth that 1 16 in. oversize is all the allowance necessary.

We are the original manufacturers of these machines.

Each size of machine embodies the very latest improvements and patents, and is the last word in "Kendall" Gangs. They are built by expert workmen with ten years' experience in what these machines can and will do. We make these machines in three sizes, as follows:

26-in. saws for 8-in. cants, as illustrated.
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OUR list of satisfied users will be sent upon request.

We also make a complete line of twin circulars, with chain or steam feed for slabbing logs for these machines.

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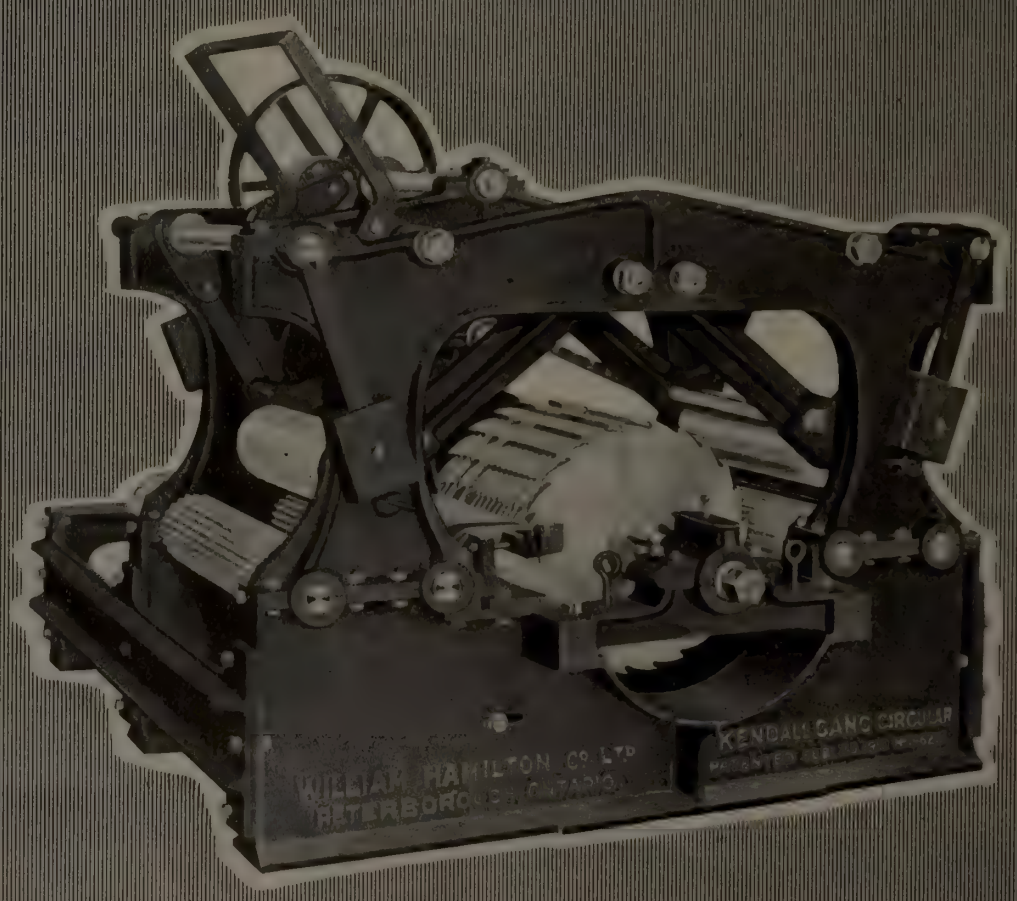

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

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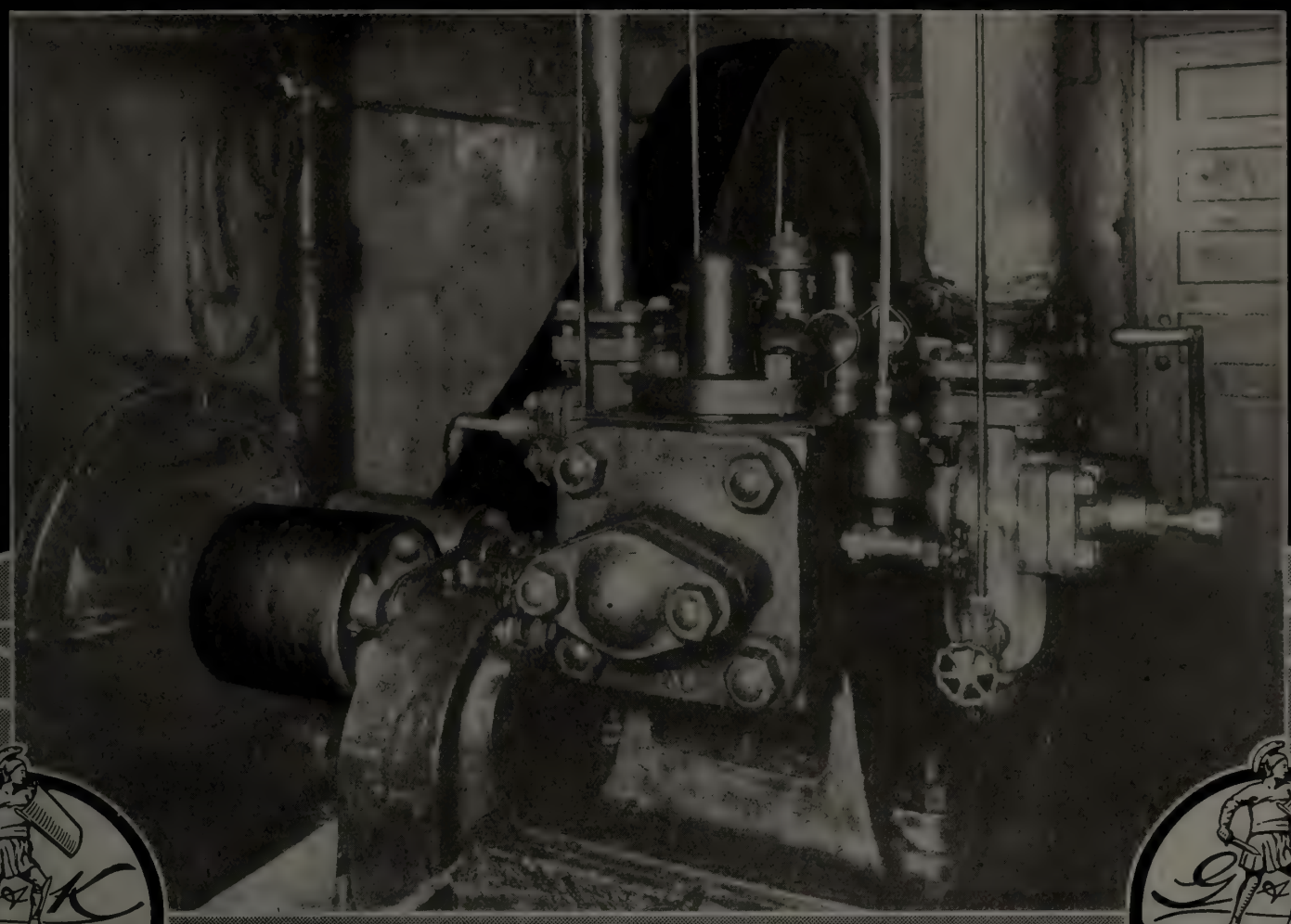
McKay Company, James

LOGGING ENGINES
Canadian Allis-Chalmers
Dunbar Engine & Foundry Co.
Jenckes Machine Company

LOG SKIDDERS
Canadian Allis-Chalmers

(Continued on page 66)

SPARTAN



SPARTAN TRADE MARK REG. U.S PAT. OFF.

SPARTAN TRADE MARK REG. U.S PAT. OFF.

BELTING

Driving Gas Compressor at Hotel Planters, Chicago, Ill.

Driving pulley 11½ inch diameter, 610 r.p.m. Driven pulley 79 in. diameter, 8 in. Lenix Idler, 8 ft. between pulley centres, 85 h. p.

Chief Engineer, Klein, says:—

"The Spartan Belt that you furnished for our twenty-five ton gas compressor is as good as new. We have run same about eighteen months about sixteen hours per day.

"The belts we used before we had yours put on run us about eight months—yours is good for a number of years more."

It's the pliability of Spartan Belting and its power of resistance to unusual operating conditions that make it the compressor belt of unequalled success. These same qualities assure you the utmost service from Spartan Belting—whether used on compressors or exposed to steam, water, oil, acid fumes, or other adverse conditions.

In short, Spartan is the belt for all difficult drives. Evidence of this is found in the new Spartan Book. It's a small book, but it shows Spartan Belting operating under a great variety of conditions. You will be interested to receive a copy, and it's yours for the asking.

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Oak Leather Tanners and Belt Makers

WORCESTER, G&K MASS., U. S. A.

Representatives for Canada:

The Canadian Fairbanks-Morse Co.
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Jas. Morrison Brass Mfg. Company

LUMBER TRUCKS
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MOTOR TRUCKS
National Steel Car Company

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Hettler Lumber Co.. Herman H.
Long Lumber Company
Mason, Gordon & Company
McLennan Lumber Company
Montreal Lumber Company
Moores. Jr., E. J.
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Parry Sound Lumber Co.
Spencer, C. A.
Summers, James R.
Terry & Gordon
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Dunlop Tire & Rubber Co.
Garlock Packing Company
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RESAWS
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Consumers Cordage Company
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Disston & Sons, Henry
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SAW SHARPENERS
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Payette & Company, P.
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Waterous Engine Works Company
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Campbell-MacLaurin Lumber Co.
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Terry & Gordon.
Timms, Phillips & Company
Vancouver Lumber Company

(Continued on page 68)

The Babbitt Metal that's at the Front in Efficiency and Economy

HARRIS HEAVY PRESSURE

"The Babbitt Metal Without a Fault," is guaranteed to give EXCELLENT SERVICE. It will not crack or squeeze out. It will run cool at any speed. It is copper coated and copper hardened. It is best for all general machinery bearings. Order a box from our nearest factory.

It is Made in Canada. What We Make We Guarantee.

We Manufacture All Grades of Babbitt Metals.

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Keep a good supply of Douglas Egyptian Liniment always on hand for the horses. A quick application may save you a valuable horse and much expense in an emergency. The only liniment made that

Stops Bleeding Immediately

Also for thrush, cuts, callouses, spavin, etc., it will be found invaluable.

FREE TRIAL

We will send you a sample absolutely free by filling in the attached coupon. This trial will prove the wonderful beneficient qualities of Douglas Egyptian Liniment.

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Napanee, Ont.

Please send me sample of Douglas Egyptian Liniment as advertised.

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This Pound of Coal

is Capable of Sustaining a Horse-power for nearly an hour.

Every pound of coal contains a definite amount of potential energy—combustion liberates it in the form of heat energy—eventually, mechanical motion. Even in passenger locomotive service (notoriously wasteful in energy transmission) a pound of coal will develop a horse-power for 20 or 25 minutes. With this in mind imagine an installation of the

Morehead Back to Boiler SYSTEM

saving, daily, from 2,000 to 30,000 pounds of coal—paying for itself in a few months' time.

This is the experience of hundreds of woodworking plants using steam for heating and drying purposes.

The Morehead System keeps steam-heated equipment absolutely free of condensation—returning under pressure the chemically pure hot condensation to the boilers as feed water.

Ask for particulars applying to your individual requirements. Our experts will be glad to work with you on any job you have which involves the use of steam in any way.

Canadian Morehead Mfg. Company

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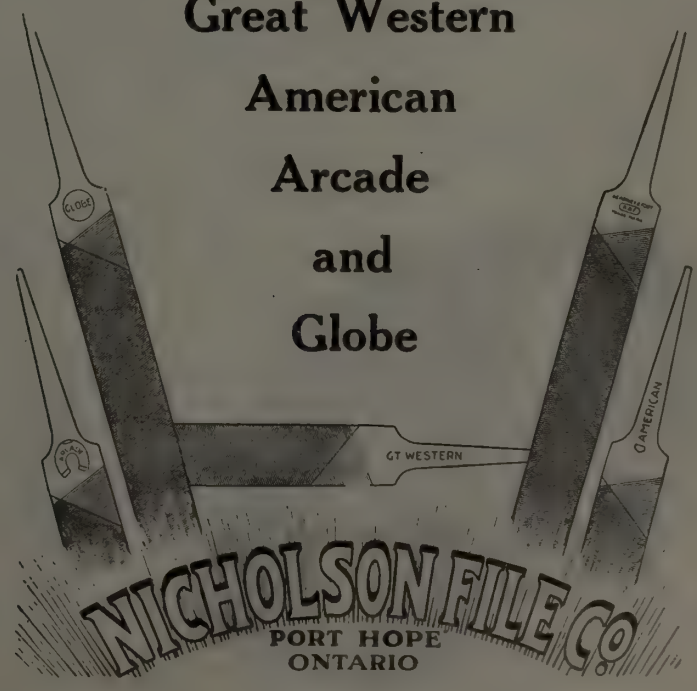
Said the Superintendent to the Purchasing Agent—

"The "Famous Five" files, Fred, are sharp and hard and do lots of work; and, if we discard them as soon as they cease to be efficient, as the maker suggests, we will get the best results. The firm that is manufacturing and selling 60,000,000 files a year must know how to make them to the best advantage—So specify "Famous Five" when next you order."

They are

Kearney & Foot
Great Western
American
Arcade
and
Globe



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Payette & Company, P.
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Waterous Engine Works Company

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River Ouelle Pulp & Lumber Co.
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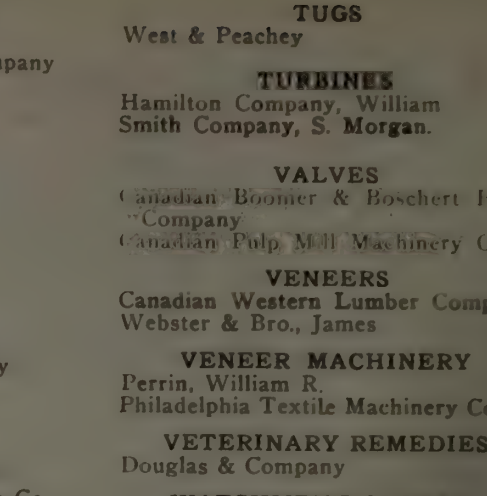
ALWAYS AHEAD!

The most advanced improvements in Saw manufacture have placed us far ahead in the manufacture of Saws for all uses.

Our Band and Circular Saws are worthy examples. They cut more timber—do it with less power and require less repair to be kept in perfect condition.



Economy in mill operation has proved their value. Put them through competitive tests with other Saws.

The Sterling quality of

Atkins Sterling Steel Saws

will overcome your difficulties.

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J. J. TURNER & SONS

PETERBOROUGH, ONT.

Government Contractors and the largest Manufacturers and Dealers in Canada of

Lumbermen's Tents, Bed Ticks, Grey Blankets, Nose Bags, Waterproof Goods, Steel Ranges and General Camp Outfits.

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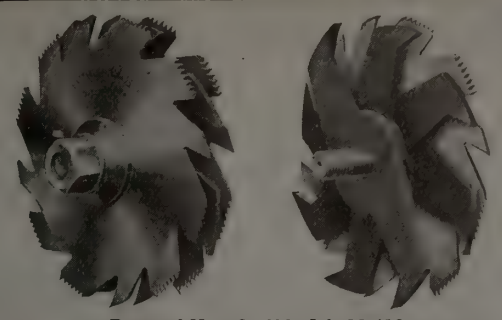
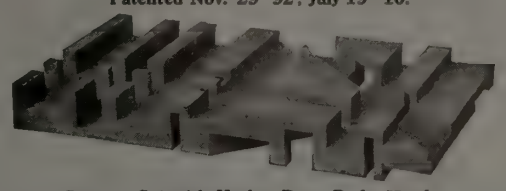


Patented Nov. 29 '92; July 19 '10.



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Fits Any Saw Mandrel

A Huther Bros. Dado Head consists of two outside cutters and enough inside cutters to make the required cut. This Head will cut perfect grooves, with or across grain, any width. It is an easy Head to keep in perfect condition, has a simple quick adjustment, and may be enlarged any time after purchase. Sent on approval and if not satisfactory return at our expense.

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Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

MONTREAL LOCOMOTIVE WORKS, LIMITED,

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CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

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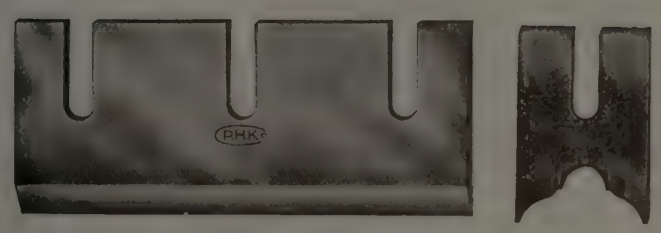

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Machine Knives, Circular Cutters and Mortise Chisel

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Long's "Quality" Carriages were the first saw mill machines built by the Company. They were the machines that earned the reputation for dependability in service, that has placed "Long" Machinery in its present enviable position, at the head of its class. There is a "Long" carriage, in a weight, and at a price, to suit every purchaser. Catalogue on application.

The carriage illustrated is our heavy duty 3 block No. 40, the knees of which recede 40″ from saw line. The carriage can be furnished in any number of head blocks or axles.

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SAW MILL MACHINERY
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This mark on your saw mill machinery is an indication that your lumber manufacturing equipment is the best and most economical money can buy.

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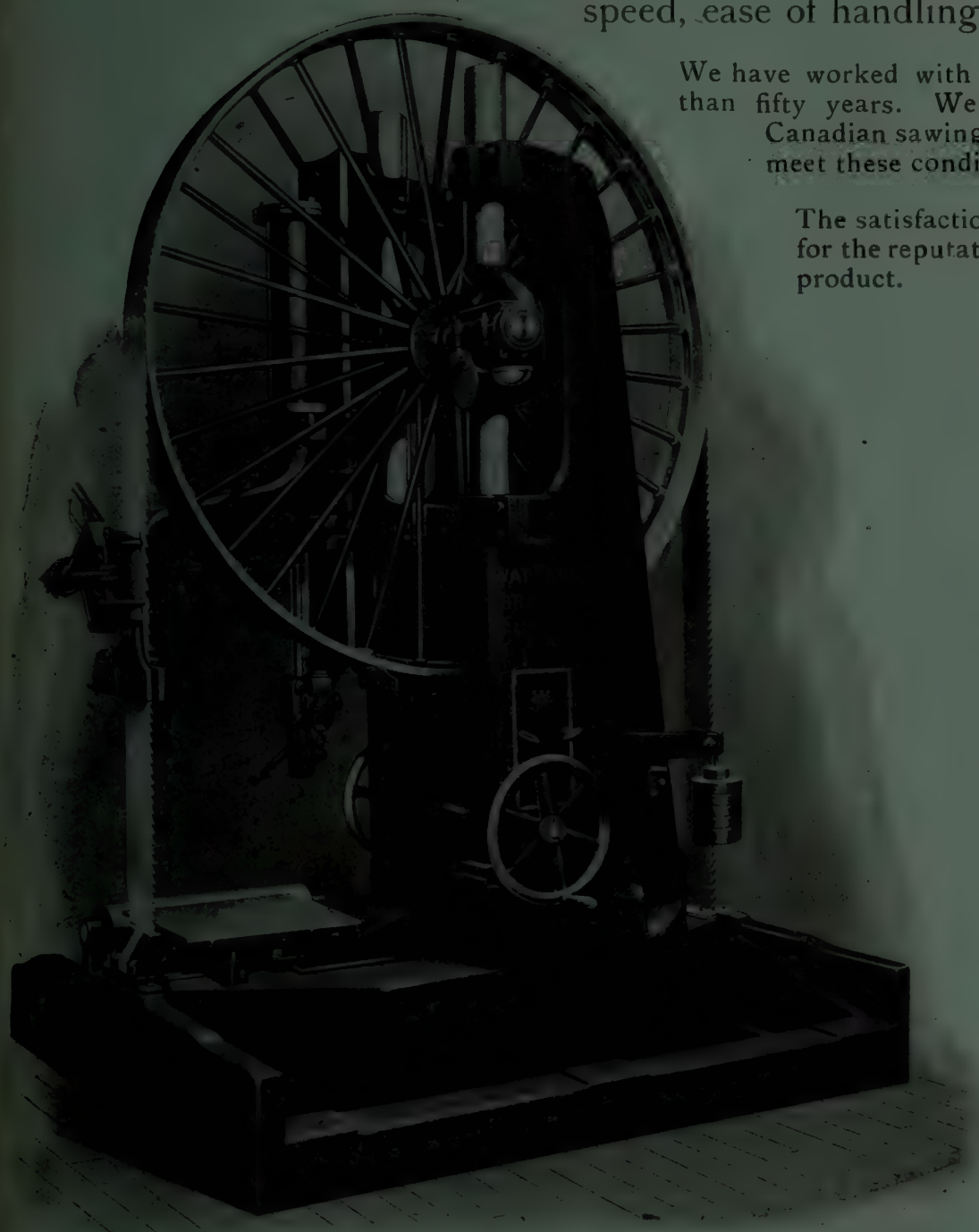
Every machine on our list—and that includes complete equipment from the log haul-up to the sorting table—is built to give the maximum satisfaction as regards safety, speed, ease of handling and general alrightness.



We have worked with the Canadian sawmill men for more than fifty years. We know Canadian mill conditions and Canadian sawing problems. Our machinery is built to meet these conditions.

The satisfaction and service it is giving is the reason for the reputation of goodness that stands behind our product.

Bandmills, 6, 7, 8, 9, 10 ft.
Band Re-saws
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Built in the largest, best-equipped shops manufacturing sawmill machinery in Canada.

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Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

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with
SMITH HYDRAULIC TURBINES

has established a reputation for real service that is second to none in the field of water power utilization. It is the result of all-round efficiency, hydraulic as well as mechanical, and has been attained by the careful consideration of every feature entering into the design of turbine equipment.

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The J. C. McLaren Belting Co.
Limited
General Mill Supplies MONTREAL

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The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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The Thomas Pink Company, Limited
Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

Vol. 37 Toronto, February 15, 1917 No. 4

Canada Lumberman & Wood Worker

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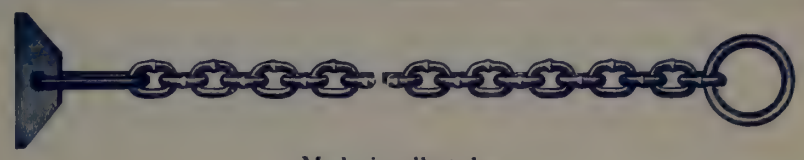
DART
UNION PIPE COUPLINGS
Your Jobber Sells Them

Pipe Connecting Made Easy

Positively No Maintenance Cost



Made in all styles
Electric-Welded Boom Chain
We also specialize
Log Chains and "Dreadnaught" Loading Chain
Made in Canada Write to Fully Guaranteed
McKinnon Chain Co., St. Catharines, Ont.

BUY GOOD HARNESS

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Forget your harness troubles. Alligator Brand is used year in and year out by wise lumbermen without the least trouble or delay of any kind.
Made to wear through sleet and snow and under most trying conditions.
The leather, tanning workmanship and hardware are good. Our 50 years experience is a guarantee of quality.
We have a big interesting catalogue giving complete descriptions of several harness models that will fill your needs. Write for it to-day.

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GENUINE "TURBROS"
Balata Belting
Waterproof and Stretchless.
The best belt for sawmills.
Manufactured and guaranteed by
Atlas Asbestos Co., Limited, Montreal
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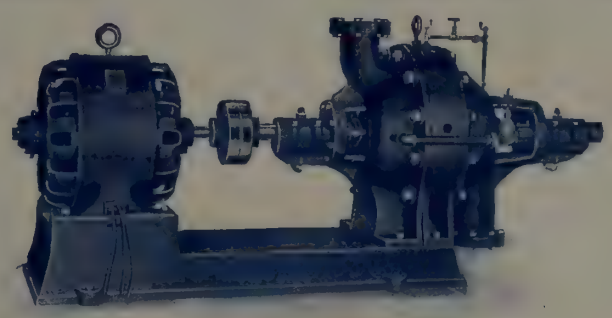
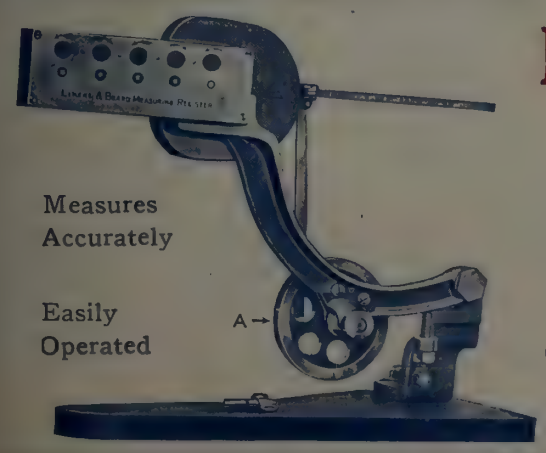


PUMPS
THE VERY BEST
The Smart-Turner Machine Co., Limited
HAMILTON - CANADA



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The Morrison Lumber Measuring Register can be used in the saw mill, planing mill, woodworking plant and retail lumber yard. It can be quickly attached to any machine and is guaranteed to accurately measure every stick as it is fed under the wheel of the register. It saves you money, time and labor.

Write for detailed information.

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93-97 Adelaide St. W., Toronto

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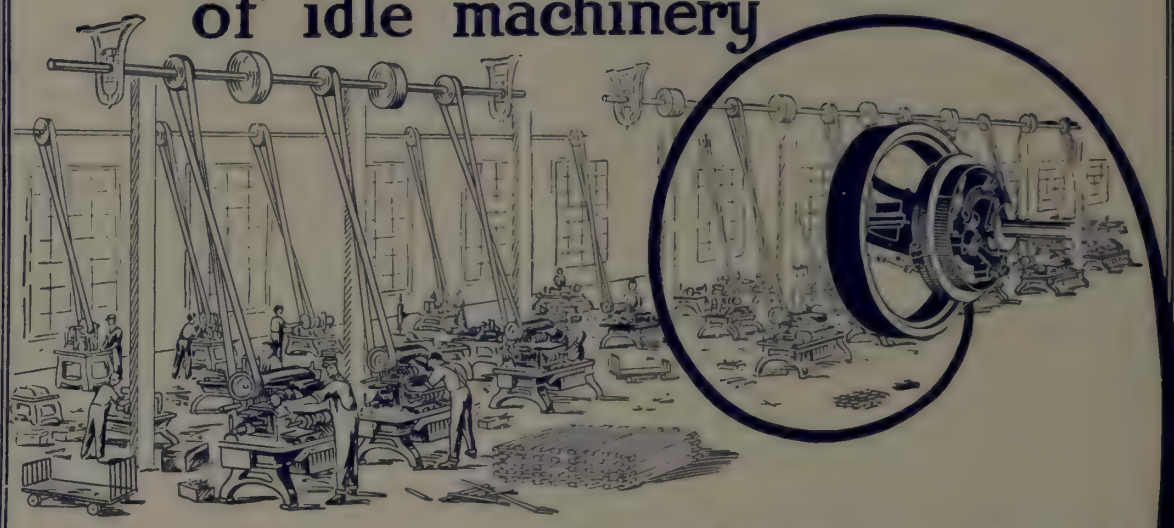
We make a high-grade line including Reducing Pressure Valves, Pop Safety Valves, Injectors, Ejectors, etc., etc.

Lumber Statistics of 1916

Lumbermen's Annual Meeting

Cut-off

the waste power of idle machinery

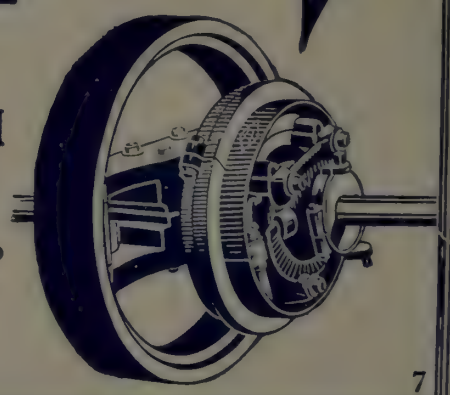


With *Dodge Friction Clutch* you can shut down parts of your Factory not operating

A GOOD friction clutch mechanism when used either as a clutch pully or a cut-off coupling is a mighty good thing in many places around a mill or factory—but when you can add to this the "split" feature you've got something real to talk about—most good mechanics know this, the trick is to get "the Boss" to know it. The timely throwing out of a Clutch Lever often prevents serious accident.

DODGE

SPLIT FRICTION CLUTCH



Sole Makers

DODGE MANUFACTURING CO., LIMITED
TORONTO, ONTARIO

7

Ottawa Valley Lumber

White Pine
Red Pine
Spruce
Lath

High Graders of Canada Lumber

FRASER & CO.

Manufacturers

Mills at Deschenes, Que.

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Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

BIRCH

4/4	1st and 2nds	estimated	average	7″x13′	27,600 ft.
4/4	No. 1 Com.	"	"	7″x13′	30,000 ft.
4/4	No. 2 Com.	"	"	6″x12′	43,054 ft.
4/4	No. 3 Com.	"	"	6″x12′	74,715 ft.
5/4	1st and 2nds	"	"	8″x13′	18,000 ft.
5/4	No. 1 Com.	"	"	8″x13′	12,000 ft.
6/4	1st and 2nds	"	"	8″x13′	7,000 ft.
6/4	No. 1 Com.	"	"	8″x13′	7,079 ft.
8/4	1st and 2nds	"	"	10″x13′	29,000 ft.
8/4	No. 1 Com.	"	"	10″x13′	3,550 ft.

Soft Maple

80,000 ft. 4/4 Mill Run Maple

Write for prices

The Long Lumber Company

HAMILTON, ONT.

Nashwaak Pulp and Paper Company

ST. JOHN, N. B.

Manufacturers of

BLEACHED SULPHITE & LUMBER

(Successors to Edward Partington Pulp and Paper Co., Limited)

HIGH GRADE

SHELL BOX STOCK

In 1 inch and 3 inch SPRUCE and PINE

In Good Dry Shipping Condition

Send Us Your Enquiries

BRITISH COLUMBIA PRODUCTS

In Fir, Cedar, Spruce, Pine, Shingles, Lath, Silo Stock, Ladder Stock, Tank Stock, Timbers

MUIR & KIRKPATRICK

1325-8 Traders Bank Building

TORONTO - - - CANADA

LUMBER

Murray & Gregory, Limited

Head Office:
ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

SAW MILLS

St. John, N.B., St. Camille and Lake Frontier, Que., cutting SPRUCE and PINE Lumber for British, United States and Canadian Markets.

Also

LATH, SHINGLES, PULPWOOD and RAILWAY TIES

Manufacturing and Grading Right

Trade *Mark*

Address all enquiries to our Head Office, ST. JOHN, N. B.

Ask your dealer for

LUMBER

from Horse Shoe Logs

WHITE AND NORWAY PINE

Our White and Norway Pine products are nationally noted for their careful and uniform grading. Horse Shoe Logs have a big reputation to uphold, and they are doing it in a manner that will make you proud of them, same as we are.

HORSE SHOE PRODUCTS
"At Your Service"

Write for prices of Boxes, Box Shooks, Wooden Pails and Tubs, Pine Lath, and Cedar Posts.

C. Beck Manufacturing Co., Limited

Penetanguishene, Ont.

"WE AIM TO SERVE YOU WITH THE BEST"

Vancouver Lumber Co.

Manufacturers LIMITED

B. C. FIR and CEDAR LUMBER

Fir Timbers
Fir Flooring, Ceiling, Mouldings, Etc.

Cedar Shingles XXX, XXXXX and Rite-grade
Cedar Bevel Siding, Barn Boards, Boat Lumber, Etc.

View of our fir mill from log pond, Vancouver, B. C.

Send enquiries to our Eastern Sales Office—

701 Excelsior Life Building,
TORONTO, ONT.

Representative, CHAS. PLANT

Watson & Todd Limited
OTTAWA

RED PINE WHITE PINE
SPRUCE

SEND US YOUR ENQUIRIES

The
Harris Tie & Timber Co.
Ottawa - Canada

Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

L. N. Godfrey Company
WHOLESALE LUMBER

60 Congress St., Boston, Mass.
U. S. A.
7 East 42nd St., New York City, N.Y.

Spruce Hemlock
Lath Pine
Shingles

We solicit correspondence from manufacturers having stock to offer suitable for the New England and the New York Markets—Rail or water shipment.

—WILL PAY CASH—

YELLOW PINE LUMBER TIMBER and TIES

Shipments made to Canadian Points direct from Our Southern Mills

Will BUY Spruce

Send Stock and Price Lists. Will pay *80% cash in advance* on receipt of Documents.

2% Cash Discount

ALBERT C. PLACE
131 State Street BOSTON, MASS., U.S.A.

Vancouver Branch
625 Birks Bldg.
F. W. Gordon, Mgr.

Flooring
Ceiling
Trim
Timbers
Mouldings

Terry & Gordon
Head Office
704 Confederation Life Bldg., TORONTO, ONT.
SPECIALTY
British Columbia Douglas Fir
Ontario Representatives of
The British Columbia Mills Timber & Trading Company
VANCOUVER, B. C.

Montreal, P.Q., Branch
23 La Patrie Bldg.
Leon Gagne, Jr., Mgr.

"T & G"
Quality Shingles
XX
XXX 16" clears
XXXXX 16" clears

We also carry a full line of Ontario products—White and Red Pine, Hemlock, Spruce, etc.

MILLS NOW SAWING HEMLOCK AND SPRUCE. - - - - - CAN CUT SPECIAL BILLS NOW.

Mill Yard.

Spruce, Tamarac, Whitewood and Poplar Lumber

SPRUCE AND WHITEWOOD LATH

Planing Mill in connection with Saw Mill

ROSSED SPRUCE PULPWOOD

Full supply of Seasoned Lumber always on hand.

RICH CLAY LOAM LANDS FOR SALE—Townships of Haggart and Kendry. District of Temiskaming. Excellent opportunities for the settler. Write for particulars.

New Ontario Colonization Company, Limited

Sales Office, BUFFALO, N.Y.

Mills:—Jacksonboro, Ont. Located on Transcontinental R.R., 32 miles west of Cochrane.

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1″, 2″ and 3″ to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson

Chapleau, Ontario

Chicago Lumber & Coal Co.

MANUFACTURERS

General Offices: EAST ST. LOUIS, ILLS.

Long Leaf Yellow Pine, Louisiana Red Cypress

Annual Capacity 350,000,000 Feet Yellow Pine
50,000,000 Feet Red Cypress

Nature's best in forest products

LET US QUOTE YOU PRICES

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask LOUIS WUICHET

Room 716 Railway Exchange, CHICAGO, ILLINOIS

BASS WOOD

We offer for immediate shipment—

1″ and 1½″ Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—

1 x 8½″ 1 x 9″ and wider

1 x 6 and 7″ 1½″ to 4″

SPRUCE BASSWOOD
ASH HEMLOCK and PINE

HART & McDONAGH

513 Continental Life Bldg.
Phone Main 2262

TORONTO

FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
1 Wood Machine for 22-in. wood.
1 Edger for ripping dry lumber, installed.
1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

The Parry Sound Lumber Co.
Limited
26 Ernest Ave.
Toronto, Canada

MORRIS A. HALL JAMES R. HALL

Hall Lumber Company
Wholesale and Commission Merchants

Spruce Hemlock Pine Lath Shingles

101 Milk St. BOSTON, Mass., U.S.A.

Structural Timbers

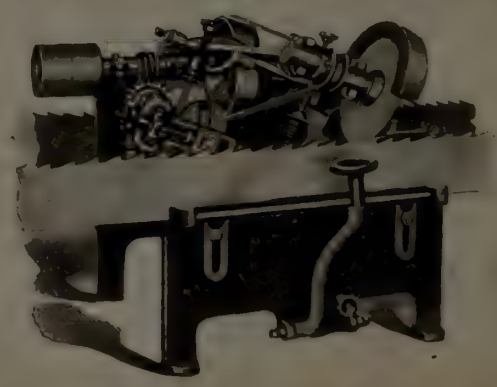
We have the equipment and the stock to supply every kind of order for structural timbers.

The illustration shows our big planer and handling gear for dressing large timbers.

Get our prices.

The Boake Mfg. Co. Limited
Toronto, Ont.

THIS BAND SAW SHARPENER



will eliminate your Saw Troubles. Is a bench machine, exceptionally well built and complete in every way. No. 5 for saws 2 to 5 inches wide; No. 6 for saws 2 to 8 inches wide.

When ordering specify for right or left hand mill.

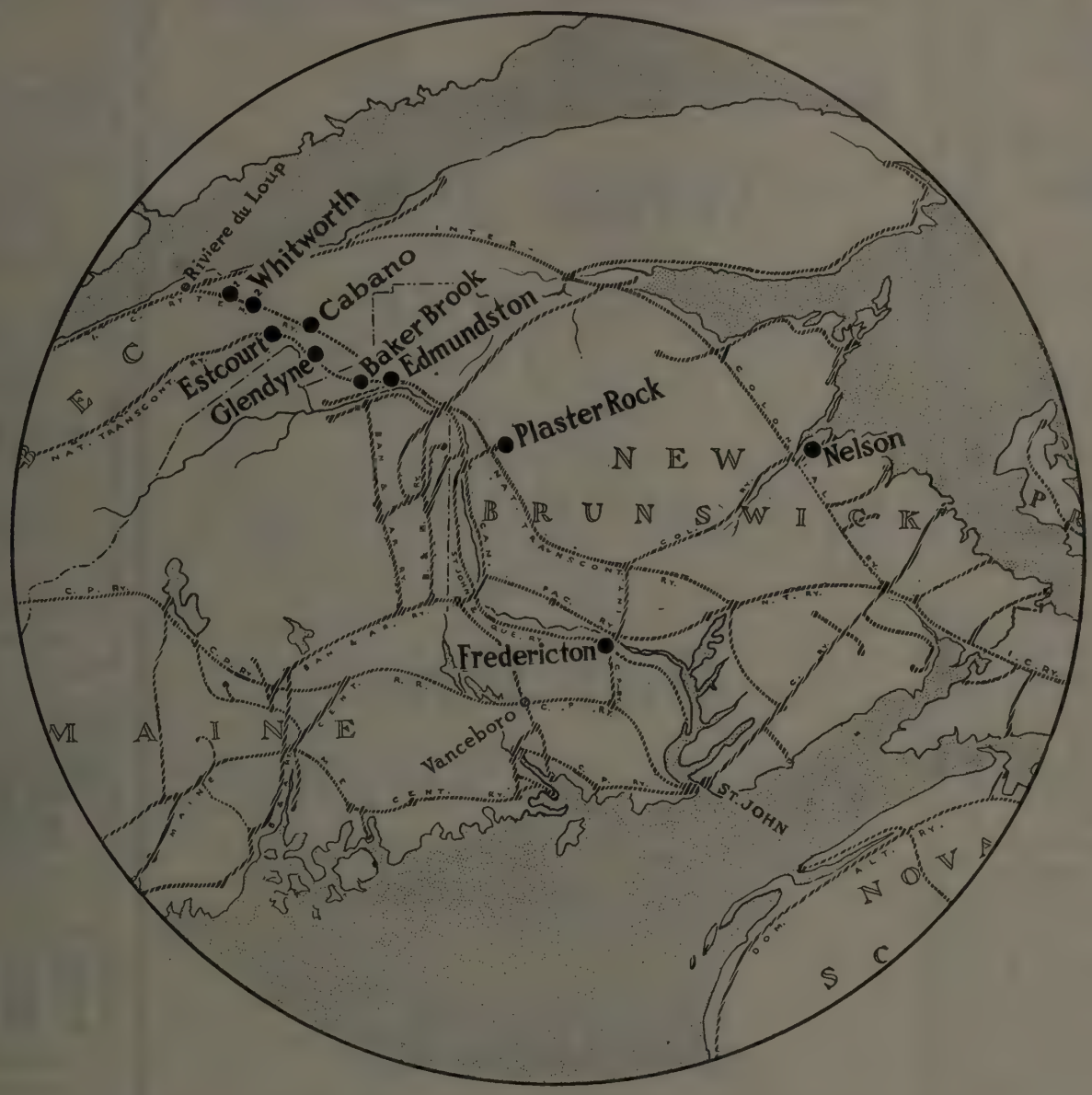
We also make a complete line of

Automatic Circular Saw Sharpeners and Automatic Knife Grinders.

Write for our Catalogue.

Samuel C. Rogers & Co., 18 Lock Street **Buffalo, N.Y.**

Ten Band Mills to Serve You



Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

Fraser Limited, Fredericton, N. B.

ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

JOHN McKERGOW, President — W. K. GRAFFTEY, Managing-Director

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Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

James P. Grant — John K. Campbell

Grant & Campbell

Manufacturers of

SPRUCE, HEMLOCK TIMBERS AND PILING AND LATH

Prices promptly given on all enquiries.

New Glasgow, N. S.

Lath Wanted

We are Buyers of ALL GRADES

WHITE PINE, SPRUCE and HEMLOCK LATH

Will contract for entire output and pay spot cash

Send full particulars as to grade, quantity and prices

FRED. J. STONE

DETROIT - - MICH

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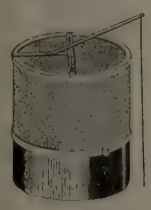
DR. BELL'S

Veterinary Wonder Remedies

10,000 one dollar ($1.00) bottles Free to horsemen who give the Wonder a fair trial. Guaranteed for Colic, Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 25c for Mailing Package, etc. Agents wanted. Write your address plainly. DR. BELL, V.S., Kingston, Ont.

Spark Arresters



Wire Cloth for Refuse Burners

Our spark arrester is substantially built and will last for years. Don't wait until a fire has visited your property, equip your mill at once.

Prices on application

Canada Wire & Iron Goods Co. Limited

HAMILTON, ONT.

BUNDLING WIRE

For Hardwood Flooring

Tie it with wire. The contractors like it because the bundles never break in handling. Write for quotations.

LAIDLAW BALE-TIE CO., Ltd.

HAMILTON, ONT.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

LUMBER

We have a full line of

White Pine

in 4/4 and 8/4

and

2 x 4" - 6" - 8" - 10" - 12" x 18 feet

Red Pine

4/4 C.&C. face—RED PINE

SEND US YOUR INQUIRIES

We are also in the market for the output of mills—both Soft and Hardwood.

We Pay Cash

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

705 Excelsior Life Building Toronto

WHOLESALE LUMBER

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Room 38-9
55 St. Francois Xavier Street
MONTREAL

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway, Yellow Pine, Hemlock Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.

Yellow Pine Timber a Specialty.

Interior Trim Mill Work

NIAGARA FALLS, N.Y.

WHOLESALE DEALERS

Eastern and Southern Lumber

We are at all times in the market for dry WHITE PINE, DIMENSION SPRUCE, SPRUCE BOARDS, HEMLOCK BOARDS, LATH and CLAPBOARDS.

Advise us of your Market Prices and Stocks

A. H. Richardson Lumber Co.

176 Federal Street, BOSTON, MASS.

Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion

"SALADA"

Send for samples and prices.
SALADA TEA CO. TORONTO

PRESSES

Hydraulic and Screw for

VENEER
VENEER DRYERS
PULP

Special machinery made to order

WILLIAM R. PERRIN

TORONTO, CANADA Limited

SPECIALTIES

Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie

Pine and Hardwood

Lumber

Lath and Shingles

North Tonawanda, N.Y.

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Our reports are the result of the honest work of experienced men. We deal in facts.

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OLD TOWN, - MAINE

TIMBER ESTIMATES
Appraisal of timber lands, timber maps, logging efficiency reports, planting. Maximum of accuracy in minimum time and at minimum expense.
D. E. LAUDERBURN, Forest Engineer
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A. D. McINNIS
Is prepared to make reports, and estimates on all classes and kinds of Timber, together with Maps, and cost of operating, also sell or buy for you.
25 years practical experience in woods operations and cruising.
CACHE BAY, ONTARIO

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Technical training and ten years' experience. Timber Estimating and Mapping. Supervision of Lumbering Contracts. Surveying. Forest Planting.
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Timber Brokers
Cable Address, "Tectona," Glasgow
A1 and A B C Codes used

FARNWORTH & JARDINE
Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth, Liverpool, England

WE ARE BUYERS OF
Hardwood Lumber
Handles
Staves Hoops
Headings
James WEBSTER & Bro.
Limited
Bootle, Liverpool, England
London Office
Dashwood House 9 New Broad St. E. C.

"Well Bought is Half Sold"

We offer the following attractive lots in Dry Hardwoods—

75 M.' 4/4 No. 2 Com. and Btr. Beech
4 M.' 5/4 1st. and 2nds. Birch
11 M.' 6/4 " " "
18 M.' 12/4 " " "
3 M.' 16/4 " " "
2 cars 4 x 6 Birch Hearts
3 cars 12/4 No. 1 Com. and Btr. Hard Maple
2 cars 8/4 " " " " "
5 cars 4/4 No. 3 Com. Maple and Beech
2 cars 4/4 No. 2 Com. and Btr. Black Ash
3 cars 4/4 No 3 Com. Black Ash
2 cars 4/4 No. 3 Com. Elm
22 M.' 16/4 No. 1 Com. and Btr. Soft Elm
66 M.' 8/4 " " " " "
6 M.' 16/4 Good Hickory
2500' 8/4 " "
1 car 8/4 No. 1 Com. and Btr. White Oak

We will be glad to quote the above upon request.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine
Hemlock
Hardwood
LUMBER

712-20 Traders Bank Bldg., **Toronto, Ont.**
Mills: Byng Inlet, Ont.

Results That Count

It pays to advertise your wants in the "Canada Lumberman" because you get results. Read this letter.

C. B. Janes & Co. Limited
VENEERS
Orillia, Canada

Canada Lumberman,
Toronto

Gentlemen,

Kindly discontinue our little sale ad., one car lumber.

We got fifteen enquiries for the one car.

Yours truly,

C. B. JANES & CO., LTD.

(signed) C. B. Janes

If an "ad." in our Wanted and For Sale Department will sell lumber for Mr. Janes it will buy or sell for you. What have you to advertise?

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

BRITISH COLUMBIA PRODUCTS

(Wholesale Only)

FIR TIMBER and Finish, CEDAR SHINGLES and Lumber

Sole Selling Agents for **The British Columbia Mills Timber and Trading Co.**, of Vancouver, B.C., for Fir Finish and Flooring for the Province of Quebec and the Maritime Provinces.

Western Fir Doors

Sole Selling Agents for Eastern Canada for WHEELER OSGOOD CO., Tacoma, Wash.—Doors, Turned Stock &c.

Toronto Office: 510 Lumsden Building
Hugh A. Rose, Representative

Vancouver Office: 304 Pacific Building
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All Grades in
White and Norway Pine
LATH A SPECIALTY

I have for immediate shipment, several cars of

2 x 9 and up---Good Sides
2 x 6 and up---No. 1 and No. 2 Shop
2 x 4 and up---C. and C. F. Norway

Milling in connection

E. J. MOORES, JR. - - Midland, Canada

Established 1873

GILLIES BROS. Limited

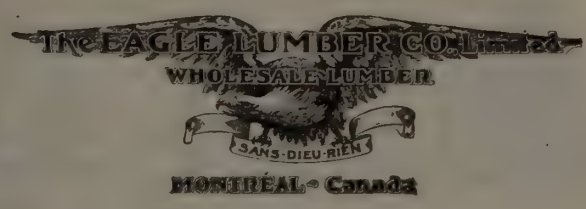
Mills and Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

RED PINE SPRUCE

New York City: Guy E. Robinson, 1123 Broadway



Eagle Quality Lumber

BASSWOOD
SPRUCE
BIRCH PINE

Cedar Posts and Poles
Railway Ties
Lath and Shingles

Cheap Lumber
for Boxes and Crating,
all Sizes

We make a specialty of Dressing, Ripping and Resawing in Transit

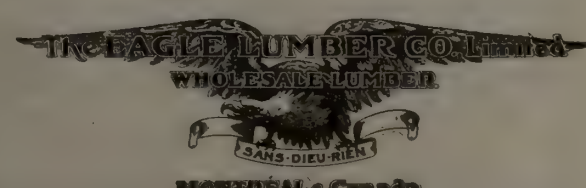
Straight or Mixed Cars

Quick Shipments

The EAGLE LUMBER CO., Ltd.
MONTREAL

Saw Mills at
Mont Laurier, Que., and Ste. Marguerite, Que.

Dressing Mills and Sorting Yards at
St. Jerome, Que.



Dressed and Rough Spruce, White Pine and Banksian Pine

We make a specialty of transit dressing, re-sawing and ripping lumber in transit at our mills in La Tuque, P. Q., located on the Canadian Northern and Transcontinental Railroads.

BROWN CORPORATION

Sales Office: PORTLAND, MAINE

Plant of The Stearns Salt and Lumber Co.

Stearns Quality

Michigan Forest Products
Hardwood, Hemlock, White Pine

LUMBER and TIMBER

40 Million Feet Dry Stock in pile containing a complete assortment for rush shipment.

Grades— GUARANTEED —Quality

Hardwood Specialists

The
Stearns Salt & Lumber Co.
Ludington, Mich.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at—Nashville, Tenn. Basic, Va. *Mills at*—Sumter, S.C. Winchester, Idaho

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

WISTAR, UNDERHILL & NIXON
Real Estate Trust Bldg., Philadelphia, Pa.

Dressing in Transit

We have stop off privilege here for dressing in transit. If you have any rough lumber on Canadian Government Railways or connecting lines that you wish to be ripped, resawed or dressed write for our price list. Good work at moderate prices. We also have facilities for

Rossing Pulp Wood in Transit

SAVOIE & CO.
Lumber Dealers Manseau, Que.
on Intercolonial Railway, 50 miles west of Levis.

The Rat Portage Lumber Co., Limited, Vancouver

MANUFACTURERS OF

Douglas Fir, Spruce, Cedar and Hemlock Lumber

Rough Timbers, Dimension, Flooring, Ceiling, Siding, Interior and Exterior Finish of all kinds including Mouldings. Fir, Spruce and Cedar Lath

Prompt shipment of Fir timbers in all sizes and up to 80 feet in length

AIR DRIED CEDAR SHINGLES We specialize in supplying air dried Cedar Shingles, these cost more than kiln dried Shingles but make a better roof and last much longer

WILLIAM POWER, M.P.
PRESIDENT, QUEBEC

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RIVER OUELLE PULP & LUMBER CO.

St. Pacome, Quebec

Exterior of Mill at St. Pacome, Que.

Manufacturers of

Lumber, Lath and Pulpwood

OUR Prime Quebec Spruce of most careful and unexcelled manufacture is the most serviceable lumber of the present day.

Interior of Mill at St. Pacome, Que.

CORRESPONDENCE SOLICITED FROM HOME AND FOREIGN BUYERS

Head Office at ST. PACOME, Quebec, Canada

On the I. C. R. 75 miles East of Quebec City

Mills at St. Pacome, and Crown Lake, River Manie, and Powerville, on Nat. Trans. Ry.

CYRUS C. SHAFER LUMBER CO.

Mills and Yards—Indiana, Tennessee, Arkansas, Mississippi

ALL THICKNESSES—BONE DRY STOCK

1 Car 4/4 Log run Basswood.
10 Cars 4/4 Log run Plain Red Oak.
10 Cars 4/4 Log run Plain White Oak.
13 Cars 4/4 Log run Quartered White Oak.
1 Car 5/4 No. 1 Com. Qtd. White Oak.
2 Cars 6/4 No. 1 Com. Qtd. White Oak.
4 Cars 4/4 No. 1 Com. and Bet. Sap Gum.
22,000 ft. 8/4 No. 1 Com. and Bet. Sap Gum.

Wire us your enquiries at our expense.

Canadian Sales Manager
E. P. MORDEN, - SOUTH BEND, INDIANA

FOR SALE

4 Cars 4/4 L. R. Soft Maple.
1 Car 5/4 No. 1 Common and Better Soft Elm.
2 Cars 4/4 No. 2 Common and Better Black Ash.
1 Car 6/4 No. 1 Common and Better Black Ash.
2 Cars 4/4 L. R. Mill Culls out Canadian Plain Red Oak, real nice stock.
Also 5/8 in. and 1 in. Spruce Crating.

I want to buy 4/4, 5/4 winter sawn Basswood

PERCY E. HEENEY, Wholesale Lumber
207 Weber Chambers, KITCHENER, Ont.
Canadian Representative D. E. HEWITT LUMBER CO., Huntington, West Va.

HENRY RIVER MILL

25,000,000 Feet Annually

Spruce--Hemlock

Hardwoods

Rough or Dressed

MIXED CARS A SPECIALTY

Random or even lengths—10-16 feet

HEMLOCK TIMBERS FOR QUICK SHIPMENT

LATH, SHINGLES, PULPWOOD, TIES

Finch, Pruyn & Company, Inc.

MILLS—Henry River, Quebec (Near Laurier)
Glen Falls, N.Y.

GLEN FALLS, N.Y.

F. N. Waldie, President. R. S. Waldie, Vice-President. W. E. Harper, Secretary.

The Victoria Harbor Lumber Co., Ltd.

Manufacturers of

Lumber, Lath and Shingles

Mills at Victoria Harbor, Ont.

HEAD OFFICE.
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No. 2222

Wilfrid H. Pauzé

1822 Cote des Neiges

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British Columbia Products

No. 2221

Grown and Made in Canada

B.C. Fir for Strength and Beauty

SPECIALTIES:

6000 Doors in Stock.

Verandah Columns and Turned Posts.

Red Cedar Shingles.

Clear Red Cedar Clapboards.

Clear Rough Fir, all Thicknesses.

5/8″ and 1″ V-Joint Sheeting, B.C. Fir.

1″x3″ Flat Grain and Edge Grain Flooring, B.C. Fir.

5 carloads of Mouldings in Stock; all Standard Pattern in B.C. Fir.

Base and Casing, B.C. Fir.

Have always cars in transit. Ask for my prices and you will make larger profit.

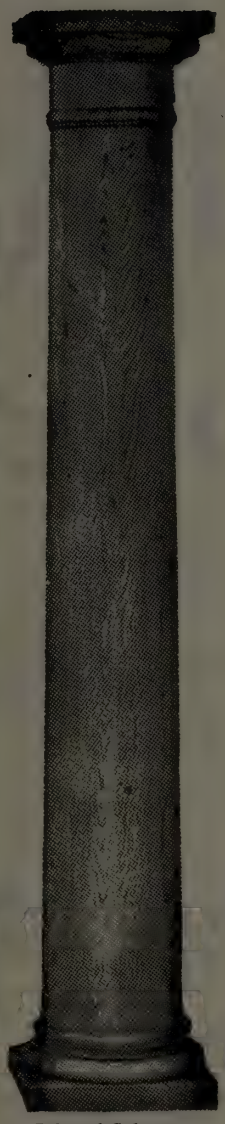
Distributor of

"BEAVER BOARD"

and

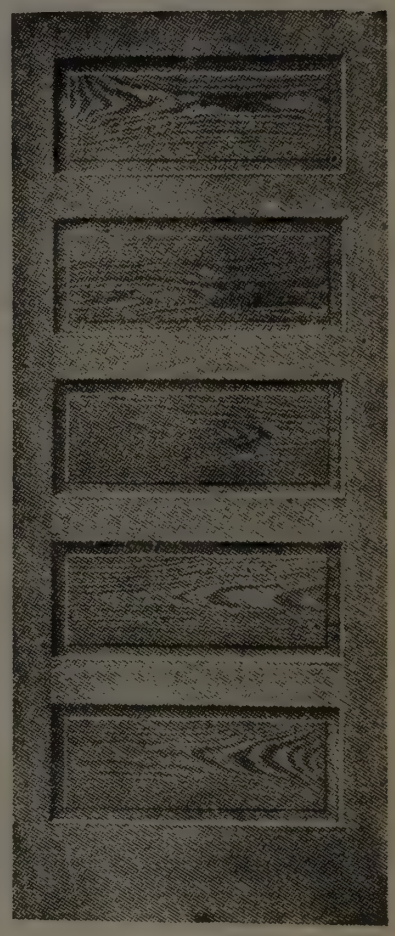
"BISHOPRIC STUCCO BOARD"

Village Style



Colonial Columns

No. 2000



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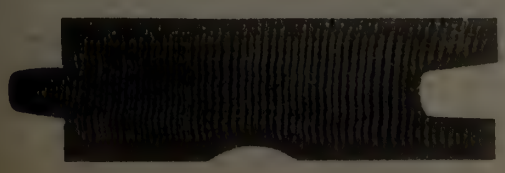

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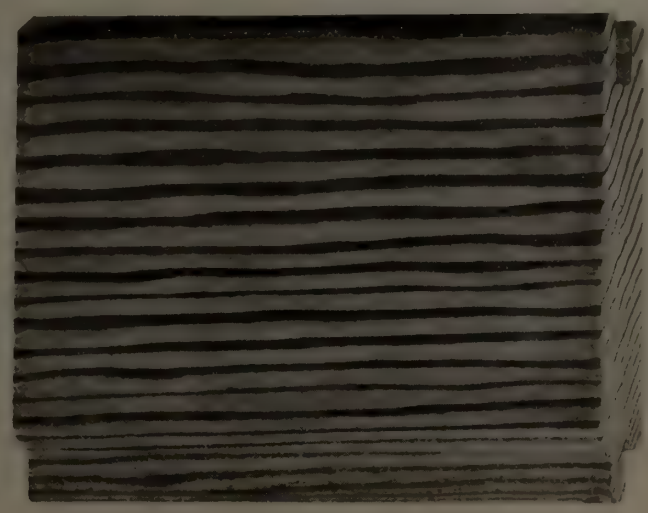

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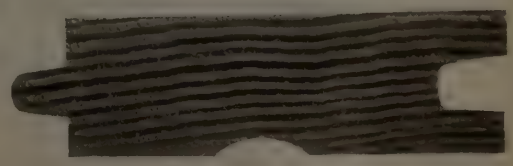

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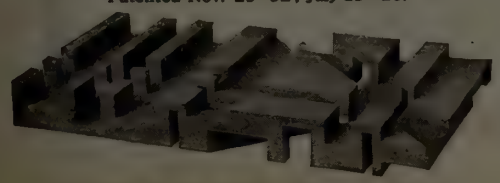
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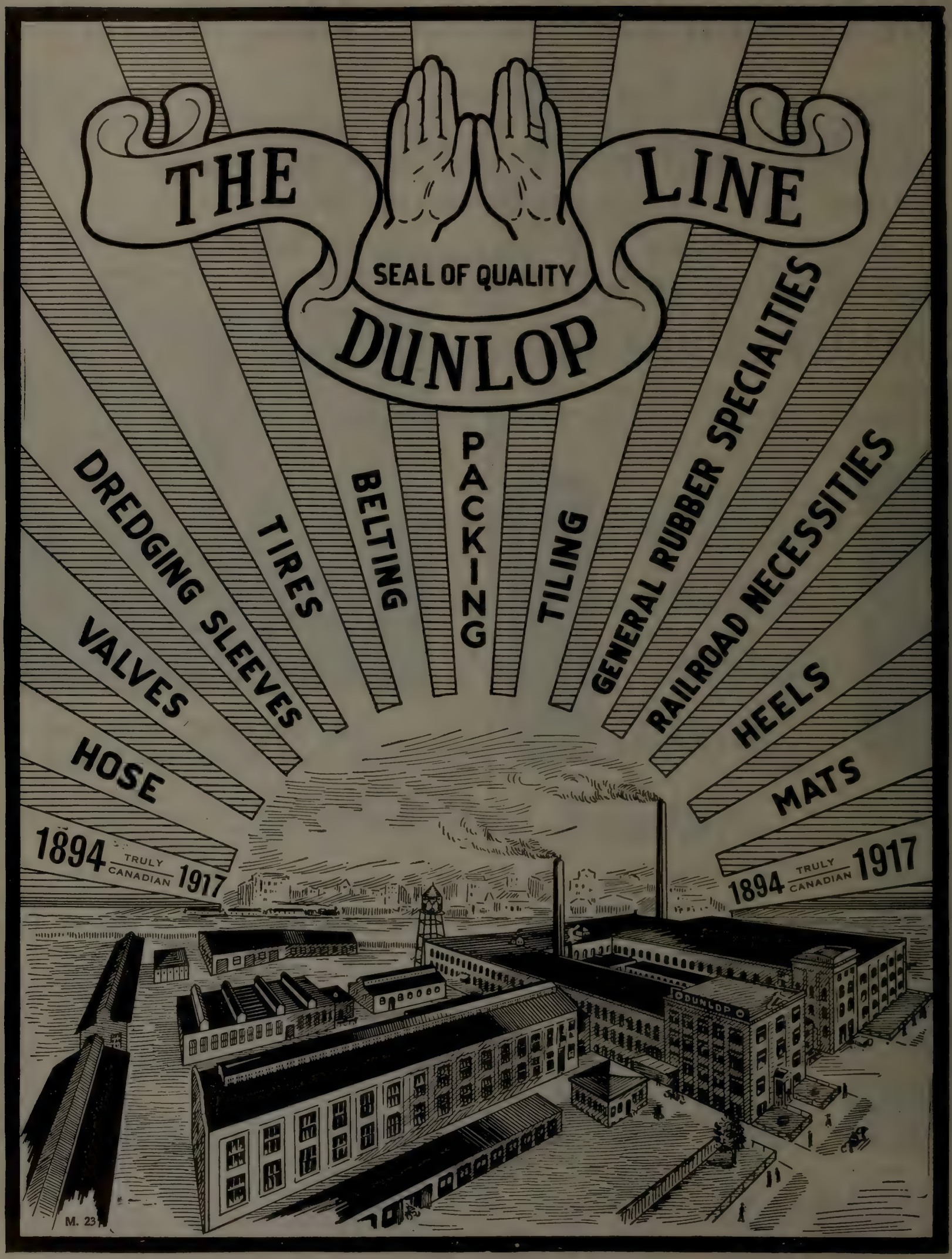
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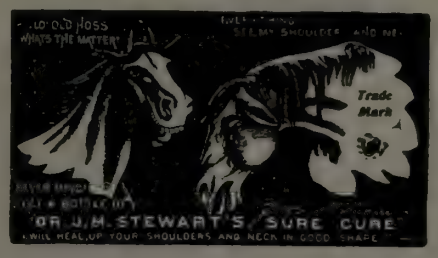

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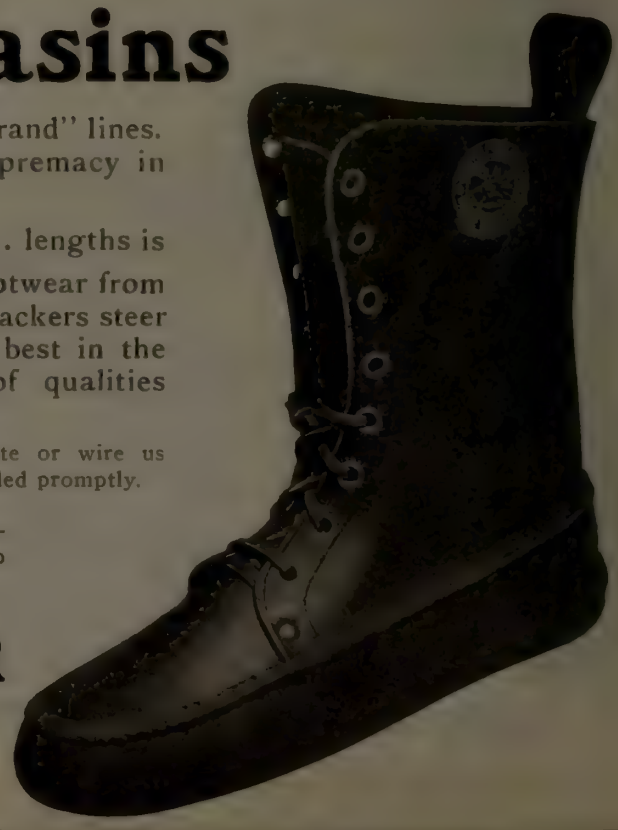

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.
Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N. Y., under the Act of Congress of March 3, 1879.

Vol. 37 Toronto, February 15, 1917 No. 4

1916—The Lumber Trade in Canada—1917

The task of reviewing the year which has just passed is a peculiar one. There is not a single man engaged in the lumber business in Canada today who has not made a close study of trade conditions as they existed during 1916. In normal times, quite a number of lumbermen are content to work along smoothly, taking things as they come, building up their trade wherever they can, but not paying a great deal of attention to the broad general problems of the industry and trade. During the times we passed through in 1916, everyone in the business was keenly keeping his ear to the ground, seeking to discover from day to day the key to the situation of the moment and an indication of what was likely to happen to-morrow. Therefore, it is not of immediate importance to recall in minute detail the experiences of the past year, but it is of importance to set down opposite one another the events of the year and of previous years and to seek to find in them something in the nature of an undercurrent tending in a settled direction, upon which it will be safe to base business operations during the present year.

Throughout 1916 the chief point of interest was the increasing scarcity of stocks of every description and the correspondingly increased prices which commenced to develop in the fall. There is no difficulty in finding the causes for these. There was an almost insatiable demand throughout the year for all kinds of lumber that could be used for war material, especially for shell boxes. The production of 1915 had been comparatively light, and as the season of 1916 advanced, the shortage of stock became everywhere apparent. This was aggravated by the great unpreparedness of the railway companies, who were not able to handle the trade offering. Congestion developed at every important shipping and receiving point throughout Canada, until embargoes had to be placed by the railways on the shipment of such stock as lumber, and in many cases upon shipments of practically every description except war materials and perishable products. For this reason the delivery end of the lumber business was disorganized throughout the year 1916, and is still suffering greatly from this difficulty, with very little prospect of improvement. Manufacturers found it difficult to make shipments all through the year. Wholesalers had the same trouble, and consumers, requiring lumber for industrial purposes, had to hunt from pillar to post to get what was necessary to keep their plants operating.

Fundamentally, the car shortage, the scarcity of stocks and the high prices were results, rather than immediate causes of the existing difficulties. Getting down to elementary things, the shortage of labor resulting from the war was at the bottom of everything, and it was closely followed by the great demand for certain raw materials and finished products, growing out of the war. These two factors were responsible for most of our difficulties, and if we are seeking for something to guide us in our course during 1917, they give us the cue. So long as the war continues, labor will be scarce, and the demand for war materials will be insistent. Therefore, unless we are optimistic enough to expect a sudden and early end of hostilities we have the events of 1916 to guide us in 1917, and these events point to continued car shortages, increasing demand for lumber, a steadily diminishing volume of available stocks, and higher costs of labor, materials and products.

In the determination of prices this year, the available stocks must play an important part. In many parts of Canada, notably in Ontario, curtailment has been widely practiced on account of the high operating costs, and the uncertainties facing sawmill operators next summer, in connection with labor, wages and transportation. Stocks in nearly all parts of Canada, which are destined for Canadian consumption will be light, so that, if ever it appeared to be safe to predict higher prices, it is safe today.

During 1916, the export trade with Great Britain and the Allies was kept in check by the high ocean freight rates, and by government restrictions on import into Great Britain. Despite these drawbacks, it is remarkable how much went forward. The course of this trade will be found very thoroughly analyzed in our Montreal and English reports in this issue.

A striking development during 1916 was the increased attention given to British Columbia lumber in eastern Canada. The merits of British Columbia products have been persistently placed before the eastern trade by the British Columbia Government and by the British Columbia manufacturers. The time was favorable for such a campaign. Competition was light. The materials from the west were of striking value and the result was a great awakening of public interest which manifested itself in extensive and profitable business. If the British Columbia Government and manufacturers continue their eastern campaign they will unquestionably create an excellent and permanent market for their products.

A Strange Year's Business in Ontario

Higher Prices Caused by Many Contributing Factors—Chief Advances During the Fall—Demand for War Materials Caused Heavy Consumption.

The year 1916 was so gradually evolutionary that nobody can make any statement that would point to any definite period or time strikingly emphasizing a change either for the better or for the worse in the lumber trade of Ontario. The general attitude of optimism is, of necessity, from the standpoint of self preservation, so largely an influence upon the outlook of the lumbermen that they are led frequently to discount the future in the attempt to realize their wishes. This explains the feeling one has in looking back over the year that has passed and trying to place himself back at the first of January, 1916.

When the year 1916 opened we found ourselves in a condition of fair activity. Inventories generally seemed to show reasonable stocks and we had by that time gotten under the sway of the demand in local quarters for munition work and for new buildings of different characters, turning upon the war; so that the winter was fairly active from the trade point of view. The United States market was perhaps more pronouncedly active even yet. Southern pine had started in the late fall of 1915 to feel the effect of the embargoes and car shortages and that led to a speculative movement causing prices to rise. Advances of from $4 to $6 a thousand were the result. This produced an enquiry for woods that might be substituted, and drew attention to Ontario hemlock, particularly in the lower grades, as being capable of supplanting the No. 2 and No. 3 yellow pine that was largely used in house building in the United States. The result was that there was quite a flurry in these woods and the market in Ontario was pretty well cleaned up for shipment over the line to Buffalo and Detroit, to Detroit in particular, which was enjoying an especially active trade for housebuilding purposes. Along with that there was a good demand for lath, the market for which had been generally good all through 1915. With the closing down of the mills, however, a shortage of lath developed in some lines and a fairly good enquiry followed.

The Course of Trade

All this movement kept under way pretty well until early spring, caused in part, perhaps, by the export situation, wherein there was a good deal of anticipation of a movement of stocks as soon as the rigours of winter navigation should have passed. In the month of May, a point was reached that was characterized by a very good and definite volume of business. This was shown in the sales sheets of almost all concerns. A prominent manufacturer and wholesaler discussing this situation stated that looking over his own sales sheets he was impressed with the fact that business had become good by the month of May. From a rather modest January they had sprung into an increase in February, which reached its highest point by April, and continued during May. Then the volume fell back a little in June and gained headway once more in July. In August a falling off was experienced as a result of the mid-summer dullness. Starting up again in September, the trade again became active and the year was wound up in a very satisfactory manner, so far as the volume of trade was concerned.

About the month of May, the situation became such that yellow pine, which enters so largely into the determination of average prices, was in good supply, instead of short supply, and shipments which had been made during January, February and March and held in embargo at the frontier began to be delivered very rapidly, with the result that most purchasers commenced to call a halt in order to get their stock in and look it over, so as to find out how they stood. Yellow pine then began to drop off and the trade lost its appetite for emergency purchases and for substitutionary woods. During none of this time, however, were our local markets affected by yellow pine or outside woods coming into Canada to any great extent. Statistics show that during the year our receipts of foreign woods were below the average.

Ontario Production Influenced Trade

About this time our mill cuts began to be fairly definitely determined and enquiries broadened, from the standpoint of the wholesalers, for stocks for the balance of the season and for the winter. Enquiries and purchases of that nature became more the order of things. This class of business seemed to broaden until the larger cuts were pretty well determined.

The most emphatic feature of the lumber business all through 1916, so far as Ontario was concerned, was, of course, the munition business, or at least the trade arising out of the production of shell boxes, and out of other uses for woods that turned upon features and factors in the war—either buildings for the making of munitions, or packages for carrying them in, and other things of that sort.

Continued activity soon began to emphasize the fact that stocks particularly suited for these purposes, namely, the cheaper and commoner grades, were not in over supply. In fact, by the first of September there came to be a good deal of a suggestion that these stocks were in short supply. This, however, did not result in any definite conviction on the part of sellers, until pretty well on towards the first of October. Then it became evident that prices, particularly for mill cuts in white pine, certain sizes of Norway, and the substitutionary wood of Jack pine were all on the low side, when one took into consideration the appetite of the buyers. Then it was that the sellers began to realize definitely their expectations that prices would advance, and they did advance. By November the 1st this advance had become more than a possibility; it was in fact, absolutely accomplished, and buyers began to dig out all items that looked reasonably cheap to anticipate their wants as far as they could. This was the order of things for the balance of the season, and as a result prices went up one dollar after another until we saw advances variously estimated at an average of from $3 to $5 a thousand feet in white pine, hemlock and spruce. Perhaps the greatest advance of all was in Norway. At least this advance was as high as that of any other wood.

The Situation at the Beginning of 1917

As might be expected, on the first of January, 1917, or when people were heading towards the 1st of January, the necessity for inventories and stock-taking, and general balancing up of business matters reduced the volume of purchases and changed the demand so that instead of anticipation and speculation the chief characteristic of the demand became an inclination to purchase only what was absolutely and definitely required. That is the situation to-day and most sellers are turning their attention to an effort to obtain car facilities to clean up the orders they have and to take care of the definite and imperative demand. This is being accomplished fairly well and most firms are managing to ship out a little more business than they are now taking on their books.

Ontario Trade with Great Britain

The export trade from Ontario to Great Britain during 1916 was interested more than anything else in the problem of securing space on trans-Atlantic vessels. Freight rates opened the year 1916 very strong, at about 400 shillings per standard, and continued at about this figure until the middle of June. Rates then dropped from 100 to 150 shillings per standard, due to the fact that the British Government released quite a number of vessels which had formerly been engaged in transport service. The effect of this decline in freight rates was rather odd. Instead of encouraging increased shipments it had the opposite result, as shippers became nervous when the freight rates showed such an uncertain tendency. Business therefore was light until the latter part of August, when rates stiffened again and continued at an advance until the close of the year, the average rate throughout the autumn being about 325 shillings. The export trade to Great Britain, on account of the vagaries of the freight rate situation, was not profitable to any great extent, in itself. Those who made money out of it during 1916 did not do so as a result of good prices for their stock, but because they took long chances upon the freight market and profited by its fluctuations.

Ontario shippers report that they exported more stock last year than during 1915. The main line handled in this trade was spruce, and most of the business was conducted on a c.i.f. basis.

Wood Construction Makes a Poor Showing in Toronto

The consumption of timber in Tornto for building purposes during the season of 1916 showed a considerable falling off as compared with 1915. Mr. W. W. Pearse, city architect, advises us that the total value of wood consumed in mill and miscellaneous construction in Toronto during 1916 was $4,685,500, and that in 1915 the value was $5,706,000. The decrease amounts to $1,020,500, a very considerable amount as compared with the total volume. Moreover, this decrease in the use of wood was in the face of an increase in the total value of building permits, which were approximately 50 per cent. greater in 1916 than in 1915. Mr. Pearse reports that the falling off in wood construction was due, no doubt, to the great number of reinforced concrete factory buildings which took the place of the ordinary wood mill construction of 1915.

The new paper mill of the St. Maurice Paper Company, Three Rivers, P.Q., was started on February 3.

Hardwoods Had An Active Year

The situation in the hardwood trade in Eastern Canada to-day, as compared with a year ago, presents some interesting contrasts. At the beginning of 1916 there was a more or less abnormal spurt in the demand for hardwoods, whereas, at the beginning of 1917 the market for hardwoods, and for softwoods also, was quite stiff, so that in places where these two lines were formerly competing with one another, they are each opening the year 1917 in a strong position. The hardwood manufacturer and wholesaler have commenced the year 1917 with large unshipped orders on their books and a very heavy demand, accompanied by only a limited supply. To-day, the demand for immediate deliveries of dry hardwood is greatly in excess of the supply in practically every thickness and grade.

At the commencement of 1916 there was a considerable surplus of cheap stock in the country, dating back over two or three years' supply. During 1916 this stock was completely absorbed and to-day, in Canada, there is probably just as great a shortage of No. 3 common hardwood as there is of firsts and seconds. The buying at present is confined largely to immediate requirements, through the fact that the new prices for 1917 delivery have necessarily advanced $5 or $6 per thousand feet in order to cover the greatly increased cost of manufacture. These increased prices will apparently go still higher, as it is now pretty thoroughly recognized that the production during 1917 will not be adequate to supply even a normal demand, let alone any increased demand over 1916.

When we review some of the chief features of the trade during 1916 we find several points of striking interest. The furniture trade, for instance, during the last six months of 1916 was good, and the furniture exhibitions all indicated that 1917 will probably produce even a better volume of trade. Western Canada regained its feet during the past year and the result is that a good year's business is expected by the manufacturers of agricultural implements. The musical instrument trade is also enjoying good times. Orders received from musical instrument manufacturers, and interviews with several prominent members of this industry, all indicate that their business was never in a better condition. The huge demand made upon the lumber business during 1916 by the munition boards placed the hardwood producer in a situation where it was difficult for him to take care of immediate requirements. The building trade in Canada during 1916 was not all that could be expected of it, but everything now points to a reasonably good trade from this source during 1917, as there are large additions to a great number of important factories in progress, and naturally this industrial activity will lead to an increased requirement in the way of houses. Many of the more important industrial centres report that they never had so many new buildings in prospect as they have to-day. Surplus stocks of lumber suitable for house trim have been readily absorbed up to the present time by United States buyers and there is not now anything in the way of a surplus supply on hand to meet this demand.

The shortage of railroad cars had much to do with the improvement in the Canadian situation during 1916 because southern manufacturers could not make any reasonable deliveries in Canada. There does not seem to be any good reason at the present time why any of the factors discussed above should not continue their influence upon the trade during 1917. In fact, the present year ought to be a banner year in the lumber business of this country. About the only cloud in the sky to-day is the lack of transportation. This is now so great that the average lumberman cannot make delivery on more than about forty per cent. of what he can sell.

Ammunition Boxes the Greatest Trade Feature

The production of shell boxes during 1916 was responsible for the consumption of great quantities of Canadian lumber. In the early part of March, orders appeared for 4.5 inch and 6 inch shell boxes. These took up a very large quantity of one inch spruce and one inch No. 2 common hardwood for the ends. There was quite a large supply of both these lines at that time, but the demand wiped these stocks out pretty closely. Orders for these boxes were continued practically throughout the summer. In the latter part of April, and early in May, an order appeared for 8-in. and 9.2-in. shell boxes. These required very large quantities of 1½-in. spruce and white pine, and for a time they used also 1-inch and 2-inch No. 2 hardwoods. This was changed a little later, and the orders for these boxes called for practically all softwoods, 2-in. stock being used instead of hardwood. In June, large orders for four-round, fixed ammunition, boxes in the old style, appeared. These took up very large quantities of 1-in. x 9-in. softwoods and 1½-in. and 2-in. hardwoods. In July, large orders were placed again for the 6-in. boxes and for 4.5-in. boxes which again created a large demand for 1-in. spruce and for 1-in. No. 2 common hardwood. In the fall, extensive orders were placed for what is known as the Bethlehem box, which called for a large amount of 1-inch spruce and for diaphragms which were either built up of hardwood veneers or made from resawed 1-in. x 9-in. birch. During 1917 there have already been placed quite a large number of orders for 3-round 4.5-inch boxes, the orders for these going to British Columbia and prairie province firms. Ontario and Quebec firms have received orders during the past four or five weeks for large quantities of 2-round 6-inch boxes, and for 8-in. and 9.2-in. boxes. Instructions have also been received to rush work upon the orders for Bethlehem boxes which were placed in October. All these factors have combined to create a huge demand for both spruce and pine in 1-inch and 1½-inch and for hardwoods for the ends and diaphragms of the boxes.

Shell Box Maker Hard Pressed

As a result of this situation the available dry supplies of spruce are very limited and prices are so high that it is difficult for the box manufacturer to get his own money back on the present basis of prices for boxes. The prices of bands, screws, nails and handles have also all advanced greatly and advances are still reported almost every week, so that the manufacturers of shell boxes are finding themselves in a very difficult position.

The Cooperage Industry During 1916

By J. Innes

Stocks of raw material put in at the cooperage mills during the winter of 1915-16 were very light, and consequently the cooperage production in 1916 fell away below the average of the previous three years. Increased cost of timber, high wages, high cost of mill supplies, and uncertainty as to the market, because of the war, accounted for the light stocking of the mills, as manufacturers were uncertain as to what prices could be obtained for the finished goods.

The cost of raw material has increased 15 per cent.

The cost of labor has increased 30 per cent.

The cost of mill supplies has increased 15 per cent.

There has been a good demand for cooperage stock during the year, both for home consumption and for export. The export trade was handicapped by scarcity and high rates of ocean tonnage, which curtailed the export trade considerably below the demands of the foreign consumers.

Stocks of manufactured goods at the mills are now almost nil, with the exception of apple-barrel stock, of which there was a surplus on account of the small apple crop.

Millmen are compelled to stock lightly again this year, as bush men are hardly obtainable, and wages have increased to $50 per month and board for experienced men.

Considerable stock, especially No. 1 staves and hoops, was imported from the United States during 1916 on account of the shortage here, but prices have advanced so rapidly in the United States for these goods that, with duty and war tax added, they are a very expensive commodity.

Prices for cooperage stock for 1917 delivery are bound to be higher than ever before, first on account of the high price of stumpage, second, because of the high cost of labor, and third, because of the high cost of mill supplies, repairs, etc., and increased overhead expenses.

Even at the higher prices which will have to prevail, the barrel will still be the cheapest and best package for food stuffs, as well as other materials, as all containers have increased in price, in even greater proportion than barrels.

The trade outlook for 1917 is very encouraging to the manufacturer. Stocks at mills are exhausted. Stocks in the hands of consumers are at the lowest possible ebb, and the demand is good, both for home and export trade, for spring and summer delivery.

This state of affairs should encourage the mill men to stock up their mills, even with all the difficulties they have to face.

Annual Meeting of Western Retailers

The annual meeting of the Western Retail Lumbermen's Association was held at Winnipeg on January 24, and was attended by a great number of retailers from the prairie provinces. In the convention hall no less than 300 names were registered. The election of officers for the year resulted as follows: Honorary president, W. D. Galvin, Winnipeg; president, F. J. Carpenter, Yorkton, Sask.; vice-president, W. Thorne, Winnipeg. N. G. Neill was re-elected secretary and Alan M. Stewart was re-elected secretary of the fire insurance company of the association.

Important addresses were delivered by representatives of the British Columbia Lumber Manufacturers' Association, the Mountain Lumber Manufacturers' Association, and the Dominion Forestry Branch.

A lengthy and interesting discussion took place on the advisability of creating a uniform system of granting credits. The association also decided in favor of organizing a coal association.

Ontario Production Increased in 1916

Output of Lumber Greater Than in 1915 by Over Sixty Million Feet— Lath Production Practically Same as in 1915—Shingle Output Decreased

The lumber production in the Georgian Bay and Northern Ontario districts during 1916 showed an increase over that of 1915, the totals being: 1916, 737,301,749 feet; 1915, 676,796,099 feet. The lath production in this district was: 1916, 253,061,560 pieces; 1915, 252,400,180 pieces. The shingle production was: 1916, 22,054,500 pieces; 1915, 36,464,000 pieces. Following are details of the production:—

Georgian Bay and Northern Ontario Lumber Production

	1916 Feet	1915 Feet
Biscotasing	3,500,000	3,500,000
Bigwood	2,125,000	3,000,000
Blind River	24,462,598	24,475,444
Boakview	1,500,000	2,500,000
Bracebridge	3,495,718	3,313,144
Burks Falls	7,067,000	6,443,000
Bear Lake	2,500,000	1,500,000
Byng Inlet	30,000,000	40,375,000
Bala	2,000,000	1,250,000
Chapleau	13,500,000	11,500,000
Cache Bay	17,000,000	16,720,000
Callander	20,000,000	19,550,111
Cutler	32,300,000	11,500,000
Coehill	.....	2,600,000
Elk Lake	3,000,000	2,000,000
Field	2,000,000	2,225,000
Fesserton	3,000,000	.....
Fort Frances	95,584,066	63,024,047
Gravenhurst	8,000,000	8,000,000
Haliburton	2,250,000	2,500,000
Huntsville	5,750,000	8,300,000
John Island	15,000,000	15,000,000
Jacksonboro	4,144,834	4,152,917
Kearney	3,500,000	4,911,000
Kenora	.....	21,541,486
Kinmount	2,000,000	2,500,000
Lindsay	5,000,000	8,000,000
L'Orignal	6,000,000	5,000,000
Little Current	13,000,000	25,000,000
Longford	3,600,000	5,000,000
Mowat	4,000,000	3,500,000
Magnetewan	2,131,155	2,319,650
Midland	63,404,965	29,117,602
Marksville	2,265,742	1,070,000
New Liskeard	4,000,000	7,900,000
North Bay	27,412,930	25,831,968
Nesterville	21,500,000	23,800,000
Otter Lake Station	4,500,000	4,000,000
Owen Sound	9,000,000	9,000,000
Parry Sound	8,900,000	9,800,000
Penetanguishene	22,341,791	18,922,135
Peterborough	9,817,024	11,500,000
Port Arthur	17,000,000	16,000,000
Powasson	3,000,000	5,000,000
Sarnia	23,440,074	22,433,364
Severn	6,000,000	6,000,000
South River	.....	1,000,000
Spragge	29,000,000	23,000,000
Spanish Mills	32,350,000	38,500,000
Sudbury	1,500,000	1,800,000
Snow Road	2,000,000	2,250,000
Thunder Bay	4,000,000	.....
Trout Creek	2,500,000	3,000,000
Thessalon	25,000,000	12,300,000
Waubaushene	21,000,000	19,000,000
Other places	59,958,852	57,345,231
Total	737,301,749	676,796,099

Georgian Bay and Northern Ontario Lath Production

	1916 Pieces	1915 Pieces
Biscotasing	1,250,000	3,500,000
Blind River	8,707,650	8,946,500
Bracebridge	1,361,950	1,491,700
Burks Falls	2,270,000	730,000
Byng Inlet	9,000,000	12,435,000
Chapleau	8,200,000	7,000,000
Cache Bay	6,107,000	10,422,000
Callander	12,000,000	8,271,000
Cutler	10,750,000	4,750,000
Fesserton	1,500,000	.....
Fort Frances	23,498,100	15,497,600
Gravenhurst	2,500,000	2,500,000
Huntsville	1,115,000	6,289,500
John Island	6,000,000	6,000,000
Jacksonboro	490,800	1,760,450
Kearney	1,922,000	2,400,000
Kenora	.....	7,199,830
Lindsay	2,000,000	4,000,000
Little Current	6,000,000	19,000,000
Longford	950,000	650,000
Midland	32,547,850	13,958,950
North Bay	13,248,960	15,133,100
Nesterville	5,100,000	5,650,000
Parry Sound	4,000,000	4,750,000
Penetanguishene	16,521,050	13,877,750
Peterborough	4,321,200	6,421,000
Port Arthur	5,500,000	5,000,000
Sarnia	13,500,000	14,200,000
Severn	1,600,000	1,600,000
Spragge	12,000,000	10,000,000
Spanish Mills	10,750,000	12,250,000
Thessalon	4,000,000	5,125,000
Waubaushene	5,550,000	6,000,000
Other places	18,800,000	15,590,800
Total	253,061,560	252,400,180

Georgian Bay and Northern Ontario Shingle Production

	1916 Pieces	1915 Pieces
Bracebridge	2,398,250	2,522,000
Burks Falls	1,971,000	1,650,000
Haliburton	900,000	500,000
Huntsville	100,000	450,000
Kinmount	1,500,000	1,500,000
Lindsay	4,000,000	3,000,000
Marmora	350,000	1,300,000
Midland	960,000	902,000
North Bay	959,250	2,212,250
New Liskeard	.....	2,300,000
Owen Sound	1,000,000	1,000,000
Penetanguishene	1,375,000	1,300,750
Peterborough	2,678,000	6,706,500
Port Arthur	.....	1,200,000
Severn	.....	1,000,000
Snow Road	2,000,000	6,000,000
Utterson	.....	400,000
Other places	1,863,000	2,520,500
Total	22,054,500	36,464,000

Ottawa Valley Lumber Production

Reduction of a Hundred and Thirty-three Million Feet Compared with 1915—Lath and Shingles also Decreased

Ottawa, February 10th; (Special to the Canada Lumberman):—Though they had to meet, during 1916, obstacles never encountered before, lumbermen of the Ottawa Valley are well satisfied with the business done. Handicapped by the difficulty of securing enough men to go into the bush, and by many embargoes that militated against shipping, as well as a shortage of cars, they have found themselves up against many disadvantages during the year. The latter two drawbacks are now more pronounced than ever, and lumber exporters and shippers are feeling the situation keenly.

The export trade from Ottawa during the year 1916 was greater, notwithstanding conditions, than in 1915.

Lumber production in the Ottawa Valley during 1916 amounted to 351,358,687 feet, against 485,096,960 feet in 1915. Lath production was as follows: 1916, 50,660,000 pieces; 1915, 81,721,000 pieces. Shingle production was as follows: 1916, 27,224,750 pieces; 1915, 37,293,250 pieces. Following are the details of production:—

Ottawa Valley Lumber Production

	1916 Feet	1915 Feet
J. R. Booth, Ottawa	40,000,000	80,000,000
W. C. Edwards, Ottawa	40,000,000	76,000,000
McLachlin Bros., Arnprior	26,000,000	45,000,000
Hawkesbury Lumber Company, Ottawa	32,000,000	52,000,000
Shepard and Morse, Ottawa	12,330,000	13,754,000
Gilmour and Hughson, Hull, P.Q.	19,000,000	25,000,000
Fraser and Company, Ottawa	5,000,000	.....
J. Lumsden, Lumsden's Mills, P. Q.	12,000,000	15,000,000
Riordon Pulp and Paper Co. (Hawkesbury)	13,188,687	14,982,969
Petewawa Lumber Company, Pembroke	5,000,000	10,000,000
Fassett Lumber Company, Fassett, P. Q.	18,480,000	17,904,000
Rideau Lumber Company, Ottawa	.....	3,000,000
Pembroke Lumber Company, Pembroke	22,500,000	19,000,000
Colonial Lumber Company, Pembroke	15,500,000	25,000,000
Gillies Bros., Braeside	30,200,000	25,800,000
R. & T. Ritchie, Aylmer	.....	5,000,000
Estate Jas. Davidson, Fort Coulonge	6,000,000	.....
James McLaren, Buckingham	26,500,000	26,000,000
Dennis Canadian Company, Whitney	7,050,000	6,500,000
St. Lawrence Lumber & Box Co., So. Lancaster.	1,500,000	.....
Papineauville Lumber Company, Papineauville	3,500,000	5,000,000
Smith Bros., Campbell's Bay	160,000	156,000
Other Places		
Other places	15,000,000	20,000,000
Total	351,358,687	485,096,960

Ottawa Valley Lath Production

	1916 Pieces	1915 Pieces
Hawkesbury Lumber Co., Ltd.	8,000,000	13,000,000
J. R. Booth	1,500,000	3,000,000
W. C. Edwards	5,000,000	12,000,000
Estate James Davidson	2,000,000	.....
James McLaren Company	4,000,000	5,000,000
Colonial Lumber Company	3,500,000	8,000,000
Dennis Canadian Company	1,000,000	1,000,000
Fraser and Company	1,980,000	.....
Gillies Bros.	2,200,000	1,900,000
Gilmour & Hughson	2,000,000	2,000,000
McLachlin Bros.	3,000,000	5,000,000
Papineauville Lumber Company	.....	3,000,000
Pembroke Lumber Company	7,000,000	6,000,000
Petewawa Lumber Company	1,000,000	4,000,000
Rideau Lumber Company, Limited	.....	700,000
R. & T. Ritchie	.....	4,000,000
Shepard & Morse	6,780,000	9,896,000
Smith Bros.	200,000	225,000
Other Places		
Other places	1,500,000	3,000,000
Total	50,660,000	81,721,000

Ottawa Valley Shingle Production

	1916 Pieces	1915 Pieces
J. R. Booth	250,000	500,000
James McLaren Company	3,000,000	6,000,000
Dennis Canadian Company	2,500,000	3,000,000
Rideau Lumber Company	600,000	1,500,000
St. Lawrence Lumber & Box Company	50,000	.....
Riordon Pulp and Paper Company	8,674,750	9,118,250
Estate James Davidson, Ottawa	1,000,000	.....
R. & T. Ritchie	1,000,000	2,000,000
Smith Bros.	150,000	175,000
Other places	10,000,000	15,000,000
Total	27,224,750	37,293,250

Ontario's Revenue from Woods and Forests

Ontario's revenue from woods and forests during 1916 amounted to $1,335,320.78, which was made up as follows:

Timber bonuses	$419,827 94
Timber dues	822,332 81
Ground rent	89,520 03
Transfer fees	3,640 00
	$1,335,320 78

Buffalo Trade Had a Good Year

During 1916 lumbermen at Buffalo, N.Y., enjoyed a prosperous and fairly active trade. Nearly all kinds of lumber showed some advance in price. Practically all firms did a larger business in 1916 than in the preceding year, and good assortments of stock were found at the beginning of 1917, in anticipation of a good year to come. The receipts by lake were not as heavy as usual, owing to the scarcity of lake vessels and the high freight rates occasioned thereby. The total lake receipts for 1916 were 67,796,000 feet, a decline of about 15 per cent. from the previous year, and receipts of shingles were 370,900,000, which is less than half the quantity brought in during the preceding year. As a consequence, the Buffalo yards are not likely to have enough white pine in some grades to last during the winter, and prices are holding stronger than for a long time. The lake lumber fleet is hopelessly inadequate. There has been no surplus tonnage for half a dozen years, and during the past year or two sales have been made so liberally to the ocean trade that nothing but the decrease in size of the lake trade has made it possible to carry what was offered. Lately these sales have been more frequent than ever, and quite a large fleet is said to be marked for the ocean trade to be taken there next spring. The old practice was to use the smaller grain and ore boats for lumber as they became too old for these trades. Perhaps not for twenty years has a lumber steamer or schooner been built, with no prospect of any more ever being constructed. Late last fall lake lumber freights went up so high that shippers began to turn to all-rail transportation, but only to be confronted with a shortage there almost as bad as in the other case. The year was a successful one in the Buffalo building trade. Up to December 1 the number of permits issued was 4,503, as compared with 4,501 in that period of 1915, and 3,787 for eleven months of 1914. Building costs for eleven months of 1916 were $11,930,000, as compared with $10,903,000 and $10,362,000 respectively in eleven months of 1915 and 1914.

The Elk Fire Brick Company of Canada, Ltd., Hamilton, Ont., report that they have appointed Rhodes, Curry Company, Ltd., head office Amherst, N.S., with branches at Halifax, N.S., Sydney, N.S., and New Glasgow, N.S., as their representatives for the Maritime Provinces.

Great Increase in Northern Pine Output

Shipments of lumber by northern pine mills belonging to the Northern Pine Manufacturers' Association of the United States, for the year 1916 were almost 200,000,000 feet in excess of the production of the mills for the same period, and more than 200,000,000 in excess of shipments of 1915. December was the only month of the year which did not show an increase in shipments, and the only month falling off in production as compared with 1915 was July. The record for the two years by months is as follows:—

	Production		Shipments	
Month	1915 Lumber	1916 Lumber	1915 Lumber	1916 Lumber
January	9,734,246	10,717,889	33,581,623	70,650,874
February	11,402,194	17,211,216	39,893,961	73,816,069
March	14,516,004	21,329,590	54,010,834	83,640,611
April	28,541,132	43,672,564	60,298,004	74,891,336
May	108,732,849	113,701,997	69,284,227	94,374,802
June	108,061,146	124,899,706	74,506,574	99,703,922
July	111,380,172	106,892,374	72,495,089	80,030,220
August	105,613,731	105,757,635	73,251,366	86,713,192
September	91,603,607	103,866,873	70,269,744	87,168,881
October	69,072,675	92,071,763	73,640,819	83,802,269
November	17,495,032	33,845,393	76,030,789	85,470,895
December	3,859,532	12,888,310	74,418,437	63,977,227
Total	680,012,320	786,855,310	771,681,467	984,240,298

The total lath production for 1916 by the same mills was 198,926,350, compared with 191,687,188 for the same mills in 1915. Shipments of lath were 176,847,975 for 1916, and 179,270,594 for 1915.

Canada's Exports of Forest Products

Canada's exports of forest products for the twelve months ending October were valued as follows: 1916, $53,899,809; 1915, $47,808,690; 1914, $42,621,760. Canada's total exports of Canadian produce during the same periods were valued as follows: 1916, $1,037,213,597; 1915, $509,092,137; 1914, $312,796,106.

Imports of wood and manufactures of wood during the twelve months ending October were valued at $10,769,661 during 1916, nearly all of which came from the United States. During the corresponding period in 1915 the value was $8,577,702.

The exports of wood and manufactures of wood during the twelve months ending October were valued as follows:

		1916.		
Articles exported.	1915.	Total.	To Un. Kdm.	To U.S.
Logs	$ 1,306,974	$ 916,204	$ 73,212	$ 842,219
Lumber—Deals, pine	1,222,323	1,413,314	1,364,092	43,420
Deals, spruce and other	9,681,016	9,203,895	7,654,309	320,238
Laths, palings, pickets	2,144,434	2,284,376	21,918	2,254,670
Planks and boards	20,815,335	25,853,996	1,831,316	22,072,837
Shingles	3,334,545	3,793,387	.....	3,762,799
Timber, square	489,404	165,108	130,191	32,027
Wood blocks for pulp	6,303,263	6,551,580	.....	6,551,580
Wood pulp	8,947,073	15,601,936	1,936,301	12,949,294
Wood and mfs. of, tot'l	$57,615,548	$70,656,330	$15,513,085	$50,469,845

Imports of Wood and Its Products into Canada

Canada's imports of unmanufactured wood during the six months ending September 30th were valued as follows:—

	1914		1915		1916	
	Dutiable	Free	Dutiable	Free	Dutiable	Free
Countries	$	$	$	$	$	$
United Kingdom.	4,010	12,616	122	6,638	45	12,257
United States	356,386	6,634,540	172,596	2,547,330	263,775	3,686,141
Other countries	926	33,230	907	10,301	332	13,846
Totals	361,322	6,680,386	173,625	2,564,269	264,152	3,712,244

Imports of manufactured wood were valued as follows:—

	1914		1915		1916	
	Dutiable	Free	Dutiable	Free	Dutiable	Free
Countries	$	$	$	$	$	$
United Kingdom.	172,591	14,943	85,192	3,281	95,289	.....
United States	2,353,784	91,768	1,221,005	82,156	1,728,963	22,949
Other countries	301,851	6,477	153,927	49	91,521	103
Totals	2,828,226	113,188	1,460,124	85,486	1,915,773	23,052

United States Had Splendid Building Year

The year 1916 was a remarkable one in the United States in connection with building operations. For each month of the year there was an increase in the value of the building operations over the corresponding month of 1915. The activity reached its maximum in July, when the gain amounted to 83 per cent. For several months the increase was slight, but throughout the year there was an upward tendency. The official reports of building permits issued in 94 of the principal cities of the United States showed an aggregate of $904,071,701, as compared with $737,989,170 in 1915, an increase of 22 per cent.

Canadian Lumbermen Annual Meeting

Enthusiastic Convention Held at Toronto—Insurance, Credit Bureau, Railway Problems, and Ocean Freights Discussed—W. E. Bigwood, Re-elected President.

The ninth annual meeting of the Canadian Lumbermen's Association was held at Toronto on February 6th, and was well attended by representatives from a large number of firms throughout Eastern and Western Canada. The meeting was notable for the fact that keen interest was displayed by members in the importance of the association and the work it is doing, while very definite plans were made for developing this work and increasing the practical value of the association to all its members.

The meeting consisted of morning and afternoon sessions, followed by a banquet in the evening. The president, Mr. W. E. Bigwood, Toronto, occupied the chair at the two meetings and presided at the banquet. This was the first occasion upon which the association has held an annual meeting at Toronto, all the previous meetings having taken place at Ottawa. This step was taken in order to awaken greater interest in the association, and was undoubtedly a wise move, as many firms in Toronto and other Western Ontario points were thus brought into closer touch with the association and its work. In conformity with this idea it was also decided that the annual meeting in 1918 should be held at Montreal, where it is certain that the extensive lumbering interests of Quebec Province will be able to give evidence of their appreciation and co-operation in the work of the association.

Among those in attendance at the convention were representatives from important sister organizations in the United States, including Mr. John M. Woods, Cambridge, Mass., president of the National Hardwood Lumber Association and Mr. E. F. Perry and Mr. W. W. Schupner, New York City, representing the National Wholesale Lumber Dealers' Association.

President's Address.

The meeting was opened by a brief address from President Bigwood, in which he referred chiefly to the work of the association in connection with insurance and in connection with its credit bureau. He outlined, also, the work done in forming a Canadian lumbermen's insurance exchange, which had been fathered by the association, but formed as a separate institution, on its own basis.

Speaking of the credit bureau, he stated that the subject of credits was one of the most important branches of a lumberman's business. Difficulties had been met with in connection with the working of the association's credit bureau, and he invited a full discussion of the subject, with a view to locating the obstacles and developing the best methods for overcoming them.

The general activities of the association during the year had covered various fields. On several occasions the Federal Government had approached the association for advice and assistance in connection with important matters, such as the supply of lumber for the use of Great Britain and her allies, ocean transport problems, and the question of requiring the use of Canadian material, as far as practicable, in all Canadian public works.

Other activities of the association included appearances before the Dominion Board of Railway Commissioners in regard to demurrage charges, sending a deputation to wait upon the Ontario Minister of Lands, Forests, and Mines to urge the adoption of modern forest protective measures, and activity in connection with safety association work appertaining to the Workmen's Compensation Act.

Mr. Bigwood concluded with a forcible appeal for enlarged co-operation on the part of all members, in order to make the association as great a power for good in connection with the industry as possible.

Insurance Exchange Report.

The president then called upon Mr. E. D. Hardy, of the Canadian Lumbermen's Insurance Exchange, to report upon the work of the exchange during 1916. Mr. Hardy gave a brief outline of the history of the exchange and of its methods. The exchange had its inception in March, 1915, and commenced operation under the co-operation of the lumbermen in the spring of 1916. It now had nearly $1,000,000 of insurance in force, which was confined to the better classes of risks, and it had written gross premiums to the extent of about $58,000. While they had had some losses, there was at the present time at the credit of the exchange something over $6,000.

Mr. Hardy then explained the difference between the exchange and ordinary stock insurance companies. The first difference was in regard to expense. In a stock company 50 per cent. of the premiums were consumed in the maintenance of the home office and agencies and in profits to stockholders. In the Canadian Lumbermen's Exchange the expenses of management were limited to 20 per cent. of the premiums. The second important difference was in connection with the conflagration hazard, which was a very heavy risk in connection with stock companies, and was estimated to amount to about 25 per cent. of the rate. The Canadian Lumbermen's Insurance Exchange took only isolated risks on lumber plants, it being the case generally that there was only one risk in a town. Thus they reduced the conflagration hazard greatly—in fact, practically eliminated it, making a saving of 25 per cent. of the premium. In cases where a number of plants were located near one another in a town, such as was afforded by the case of Ottawa, it was only necessary to confine the risks assumed for the group to what they would ordinarily accept on a single risk.

Another point of difference between the stock companies and the exchange was connected with the moral hazard. By specializing in one class of risk and becoming familiar with its details they were able to discriminate very finely and reduce the moral hazard to a minimum. Moreover, they were also able to specialize in the development of means for reducing the physical hazard, giving close attention to inspection service.

Mr. Hardy stated that the organization had been strongly endorsed by the superintendent of insurance at Ottawa, and had received the support of a large number of lumbermen, while at the same time it was being watched with a great deal of interest by other lumbermen and by representatives of stock companies and sister com-

W. E. Bigwood, Toronto
re-elected President

W. Gerard Power, St. Pacome, P. Q.
First Vice-President

Angus McLean Bathurst, N. B.
Second Vice-President

panies in the lumber insurance business in the United States. The exchange was now making an effort to secure further subscriptions from lumbermen, to the amount of $30,000, making a total of $50,000, to be obtained in the form of Canadian war loan bonds, for the purpose of enabling them to do a more extensive business and to carry some of their risks without having to re-insure them. With subscriptions to this amount they would be able to obtain a Dominion license and to do business in any part of Canada.

The Afternoon Session.

At the afternoon session Mr. William Power, of W. & J. Sharples, Reg'd., Quebec., P.Q., drew attention to the fact that a regulation had been recently put into effect requiring that all freight upon exports from Eastern Canadian ports must be prepaid. He urged that the association should take up this matter and make a vigorous protest.

The secretary of the association reported that he had called upon Sir George Foster, Minister of Trade and Commerce, to discuss this matter with him. He had learned that not only would they be called upon to prepay freight on all ocean shipments, but would have the interest charges on the freight and the insurance to carry. This was a matter that affected exporters and manufacturers seriously. Sir George Foster had told him that he could see no way out of it.

In connection with this matter the secretary also announced that Great Britain had passed, or was about to pass, a certain order whereby excess profits of the steamship companies would go to the government. Apparently the only thing the shippers could do was to grin and bear it; at the same time it would be advisable to pass a resolution, as this would strengthen the hands of the association in dealing with the matter.

Other executive reports were presented in printed form and adopted without amendment. These included reports from the treasurer, the executive committee, and the transportation committee. The points referred to in these reports were dealt with also, either in the president's address or in the resolutions adopted by the meeting.

The president introduced a discussion on the credit bureau situation, which was canvassed in all its features by several of the members who followed. The opinion was generally expressed that a credit bureau should be vigorously handled by the association. An effort had been made along this line which, up to date, had not met with the proper amount of co-operation on the part of members.

After the members had discussed the matter pretty fully an address was given by Mr. E. F. Perry, secretary of the National Wholesale Lumber Dealers' Association, New York City, telling of the way in which its credit reporting department was handled and of the great success with which it had met. The workings of the Lumbermen's Credit Bureau of Toronto, a retailers' organization, were also explained by the secretary of the bureau, and, with this information on hand, a standing vote was taken as to whether the members desired to have the credit bureau of the association continued. The vote was unanimously in favor of such a course. Then, at the suggestion of the president, a committee was appointed, consisting of Messrs. Duncan McLaren, Toronto; Walter C. Laidlaw, Toronto, and A. E. Clark, Toronto, to go into the whole situation, enquiring into the reasons for the failure of the bureau in its present form to fill the bill and devising a plan for reorganizing it and placing it upon a practical and workable basis. This committee was given power to add to its numbers and to put into effect the recommendations which it finds to be advisable.

Resolutions Carried.

A number of resolutions were presented by the committee on resolutions and adopted. The important ones were as follows:

That the association co-operate with provincial and Dominion governments and local interests to assist them in meeting the important economic, commercial, industrial, and agricultural situation that will develop after the war.

That the executive council take steps to secure as full information as possible from shippers regarding the effect of the changes in the car service rules effective from January 1st to April 30th, 1917, in order that the former conditions prevailing in connection with demurrage charges and regulations may be restored on the date of the expiry of the temporary regulations.

That the incoming executive be directed to press for the adoption of reciprocal demurrage regulations in the event of any attempt on the part of the railway companies to continue the present demurrage rules beyond April 30th, or in the event of any proposed departure from the car service rules in operation prior to January 1, 1917.

Railway Act Amendments Proposed.

That, as the Dominion Railway Act is expected to be revised and consolidated during the present session of the Dominion Parliament, the association should recommend several changes, namely: (1) That in the case of any special freight tariffs being filed by the railway companies by shippers, either before or after the effective date thereof, such exception or protest, if entertained by the board, shall postpone the effective date of the proposed new tariff until the matter has been heard and disposed of by the board; (2) that in connection with any special tariff, the rates under which are increased, the burden of proof (a) that old rates are inadequate, unsatisfactory, or unworkable (b) that a larger freight revenue is required and necessary, and the reasons therefore, shall be on the transportation company or companies.

In addition to the above resolution regarding the Railway Act, it was urged by the committee on transportation that the revised act should contain a provision that freight and operating expenses should be shown separately from passenger and other operating expenses by the railway companies.

A resolution was also carried authorizing the association to co-operate with the Canadian Manufacturers' Association and various boards of trade and other associations in Canada in efforts to have legislation adopted that would accomplish the above results.

A resolution was carried in regard to insurance, calling attention to the fact that an investigation is being held by Mr. Justice Masten into the whole insurance situation, and expressing the opposition of the Canadian Lumbermen's Association to any legislation, federal or provincial, designed to interfere with reciprocal or inter-insurance contracts, or to make insurance more expensive; also that the association should co-operate with any other bodies interested in reciprocal insurance.

Object to Prepayment of Ocean Freight Charges.

A resolution was adopted in regard to prepayment of ocean freight rates, the wording of which was as follows: "In view of the fact that the steamship lines trading with Canadian ports have notified export shippers of lumber to all European ports that ocean freights must be prepaid, which at present rates of freight involve an enormous outlay on every cargo shipped, including loss in exchange, insurance, and interest, and which would thereby impose a great hardship on all lumber and timber exporters, be it therefore resolved that the executive committee of the Canadian Lumbermen's Association be authorized, without delay, to take whatever steps they may deem advisable to protest the decision of the steamship companies, with a view to having it set aside."

After the business session a number of interesting addresses were delivered, as follows:

"Burning Slash in Forests," by B. W. Lakin, superintendent of the Log and Land Department of the Crookston Lumber Company, Bemidji, Minn.

"Tests of Canadian Woods," by R. W. Sterns, Forest Products Laboratories, Montreal.

"The White Pine Blister Rust," by W. A. McCubbin.

"Dry Rot in Buildings," by W. Kynoch, Forest Products Laboratories, Montreal.

Several of these addresses were illustrated with interesting stereopticon views.

Officers for the Current Year.

The president then announced the result of the election of directors, which had been held during the morning session, the directors elected being as follows:

Ontario—W. E. Bigwood, Toronto; Duncan McLaren, Toronto; P. C. Walker, Ottawa; Gordon C. Edwards, Ottawa; A. E. Craig, Toronto; Walter C. Laidlaw, Toronto; Dan. McLachlin, Arnprior; J. G. Cane, Toronto; E. R. Bremner, Ottawa; W. J. Lovering, Toronto.

Quebec—Ward C. Hughson, Hull; Arthur H. Campbell, Montreal; W. Gerard Power, St. Pacome; George W. Grier, Montreal; Lieut.-Col. J. P. White, Montreal; Alex. McLaurin, Montreal.

British Columbia—E. W. Hamber and E. C. Knight, Vancouver.

New Brunswick—Angus McLean, Bathurst.

Saskatchewan—A. L. Mattes, Prince Albert.

At the close of the association's meeting a directors' meeting was held and the following officers were elected:

President, W. E. Bigwood, Toronto (for a second term); first vice-president, W. Gerard Power, St. Pacome, P.Q.; second vice-president, Angus McLean, Bathurst, N.B.

The Evening Banquet.

The banquet, held at the King Edward Hotel in the evening, was attended by about 100 guests, including ladies, and was a very enjoyable event. Mr. W. E. Bigwood presided, and the chief guests at the head table were Hon. G. Howard Ferguson, Minister of Lands, Forests, and Mines for the Province of Ontario; Mayor T. L. Church, Toronto; John M. Woods, president of the National Hardwood Lumber Association, Boston, Mass.; E. F. Perry and W. W. Schupner, of the National Wholesale Lumber Dealers' Association, New York City; William McNeil, Vancouver, B.C., and Flight Sub-Lieut. Gerald A. MacLean, Toronto.

The toast to the King opened the proceedings of the banquet and was followed by a toast to the President of the United States. The after-dinner speaking was opened by Mayor Church, who delivered an eloquent address of welcome and referred vigorously to the share

taken by Ontario, and by Toronto in particular, in the defence of the Empire. He spoke forcibly of the lumber industry, referring in complimentary terms to the patriotism of the lumbermen and the economic importance and great extent of the lumbering industry.

Ontario's Forest Policy.

Hon. G. Howard Ferguson, Minister of Lands, Forests, and Mines for the Province of Ontario spoke at considerable length regarding the work of his department. His opening remarks referred to the fact that the lumbering industry had suffered to some extent on account of the war. However, notwithstanding the scarcity of labor, difficulty of operation, and limited markets, they had produced during the past year, in Ontario, in the neighborhood of 310,000,000 feet of lumber. The industry now totalled in its production almost one-third that of the Dominion of Canada.

Since becoming Minister of Lands, Forests, and Mines he had made it his duty to ascertain means for increasing and conserving the great wealth in the forests of Ontario. Lumbermen knew something of what lack of fire protection there had been in Ontario in the past. The industry to-day had progressed entirely beyond the machinery with which it was surrounded. The department now proposed to see that more modern and effective methods of forest protection were adopted, and were counting upon the co-operation of the lumbermen. He hoped to be able to say in the near future, that we have in Ontario the finest system of fire protection in existence anywhere on this continent. They did not intend to spare any expense or effort in bringing about this result, and would discard, almost entirely, the fabric of their old fire protection system in order to establish one that was up to date.

They proposed to divide the North Country into three belts, each belt in charge of a separate superintendent. One of these belts would be in charge of Mr. Archie McDonald, who had formerly been in charge of the Coaticook forest reserve. Mr. Bliss, who had formerly been in charge of the Nepigon Reserve, would now have charge of another of these belts, and Mr. Ernest Poole, located at Cochrane, would take care largely of the settlers and of the pulpwood industry in that part of the province.

They proposed to increase the number of fire rangers and to have a continual, annual service—a staff permanently at work, going about among the lumber camps, studying conditions, seeing how improvements could be made, getting advice and assistance from those in the industry, and doing everything possible to improve the efficiency of the service. They would increase the telephone service, build lookout towers, and furnish pumps and gasoline boats and all other equipment desirable or necessary to make it a first-class service. The department intended to take the force entirely into its own hands. Of course, they would still take the advice of lumbermen in connection with these matters, particularly in regard to the location of the fire rangers, and they intended to pay the entire cost of the service out of the coffers of the province and then to ask the lumbermen to contribute to the province their share of this cost.

Financing the Fire Protection.

In order to work out the financial aspect of the question satisfactorily they had devised a plan under which the lumbermen would pay little, if anything, more than they were paying to-day. He thought that the lumbermen should be prepared to pay from one-quarter to one-third of the cost of fire protection in Ontario, but he desired to take upon himself and the department entire responsibility for the administration of the service. Taking the figures in the records of the department he had found that about 1 cent per acre would not make much difference to the average lumberman, and that it would produce just about the amount that the lumbermen were spending to-day on fire protection. He was open to suggestion in regard to this matter and all others relating to the service and hoped that lumbermen would give him their views.

The tax of 1 cent per acre, he expected, would have a further important effect. In a large number of cases lumbermen were retaining extensive areas on which no timber was standing, as a measure of fire protection for their present operations. If the department took care of the fire protection there could be no object for the lumbermen in retaining these large areas. He hoped that many of the lumbermen would return to the crown extensive areas that were of no value except for fire protection, and that the government would be able to repay them by furnishing more and better means of protection than they had at present.

Another feature that they hoped to develop from the protection service, and that they had never yet been able to secure, was the carrying out of a survey of the forest wealth of the province. They did not know to-day what they had in the way of timber resources. With a sufficient staff of forest rangers spending their time in the forests, they would be able to obtain an estimate, and in a very short time be able to say, with some degree of accuracy, just what the amount of their timber wealth was, how long it would continue, and what the future held in store for the lumber industry of Ontario.

Mr. William McNeil Vancouver, B.C., delivered an interesting address, in the course of which he dwelt particularly upon the situation of Canada as a part of the British Empire in connection with the struggle of the Allies against Germany. His address was chiefly a strong plea for Canadians to get together closely, eliminating the gap between East and West, and working together so as to assist the Empire to the very limit of their possibility.

The speaking was concluded by Flight Sub-Lieut. Gerald A. MacLean, Toronto, who described vividly his flying experiences on the coast of Belgium.

British Government to Take Excess Shipping Profits

Confidential information has been received by the Canada Lumberman in regard to the ocean freight rate situation which is of great importance to exporters. The high ocean freight rates, advancing continuously since the commenmement of the war, until they have become almost prohibitory, are a source of great anxiety to the whole trade. Further advances would be a great blow to the exporting business. Our information is to the effect that the British Government have advised steamship companies that in future they will be allowed a profit of 7½ per cent. over and above the cost of operation, and a reasonable allowance for repairs, depreciation, etc. Anything received beyond these amounts will be taken by the British Government. This is a radical step, which may mean a revolution in regard to ocean freight rates. At present the British Government controls, having commandeered, about 85 per cent. of the Atlantic shipping capacity out of Canada. The other 15 per cent. will now be subject to the appropriation by the Govenment of all its receipts above the amount specified. There is considerable speculation as to what this will bring about. Fear is expressed by some that extensive stocks now unsold in Great Britain will have to compete with new stocks arriving on a greatly reduced freight rate produced by the Governments' action.

British Government Prohibits Lumber Trading

Montreal, Feb. 8.—(Special to the Canada Lumberman.)—A serious situation regarding the export of soft woods has arisen, owing to the lack of tonnage. Cables from London state that the Government have prohibited all dealings, sale, or purchase in Great Britain in soft woods, except on old contracts. This is understood to mean that while lumber can be shipped, its sale or purchase is prohibited. Lumber can thus be piled, but under the circumstances it is not likely that exporters will take the risks inherent in sending goods. It may be that the order will be only of a temporary character, but nevertheless the situation on the surface is serious. The steamship companies will not book an inch of space, and contracts are out of the question.

It is understood that the British Government have decided not to allow chartering of neutral vessels over 1,000 tons without a permit.

The position of hardwoods remain the same as last season—no exports are permitted except under British Board of Trade license.

At the moment of writing the general outlook is distinctly unsatisfactory, and it would appear as if there will be a substantial decrease in shipments, unless, indeed, the Government are compelled, by the necessity for lumber, to raise the prohibition and arrange for tonnage. The Government are requisitioning large amounts of space on vessels going from our winter ports, and it is more than probable that contracts already given to lumber firms will be greatly modified, if not cancelled.

John M. Woods, Cambridge, Mass., Visits Toronto

One of the distinguished guests in attendance at the annual meeting of the Canadian Lumbermen's Association, held at Toronto on February 6th was Mr. John M. Woods, president of John M. Woods and Company, Cambridge, Mass., who attended as the official representative of the National Hardwood Lumber Association, of which he is president. "Uncle John," as he is familiarly known to the lumber trade, is the first president of this association residing east of Buffalo. Nevertheless, he is one of the most popular presidents that the association has had, and has conducted its affairs with great satisfaction to all the members.

Mr. Woods is a pioneer American lumber manufacturer, having been actively identified with the lumber industry for the past fifty-one years. During the past 34 years he has been the leading spirit in the firm of John M. Woods and Company. He has a great number of friends in Canada, and, as president of the National Hardwood Lumber Association, particularly appreciates the fact that there are thirty Canadian firms represented as active members of the association. During his visit to Toronto Mr. Woods took pleasure in renewing and extending his circle of Canadian friends. In addition to his business interests in Canada Mr. Woods has personal asociations of a strong type, having good Canadian blood flowing in his veins, his grandmother having been a native of Canada.

Eastern Association Holds First Annual

The first annual meeting and dinner of the newly formed Eastern Lumbermen's Association was held recently at Bangor, Me., and was attended by 46 representatives of the various manufacturing, operating and wholesale concerns forming its membership, including representatives from important firms in the Maritime Provinces. The Eastern Lumbermen's Association, which was formed recently, has now a membership of 59. Its object is the promotion of the general welfare of the industry and trade, and a better understanding among individuals, firms, and corporations engaged in taking out logs and pulpwood, in the manufacture of lumber, and in the handling of lumber in wholesale lots designed for the New England and New York markets. The intention is to cover the producing territory in Maine, New Hampshire and Vermont, as well as in the Maritime Provinces and Quebec. Its present membership represents or controls an anuual production of long lumber exceeding 300,000,000 feet, in addition to a large production of short lumber, shingles, clapboards and lath. There is also represented in its membership a large output of miscellaneous lumber products, such as box shooks, pulpwood, saw timber and veneers.

The Eastern Lumbermen's Association had its inception in the fall of 1916, at the time of various unsettled factors in the lumber situation, such as the unprecedented rise in the cost of supplies, general manufacturing and logging costs and other disturbing elements. Representatives of 24 large firms in Maine and New Brunswick met at Bangor in October and formed a permanent organization with the following officers:—President, Mr. R. H. McWilliams, Sheridan, Me.; vice-president, Mr. A. W. Brown, Vanburen, Me.; treasurer, Mr. W. A. Finnegan, Bangor, Me.; secretary, W. H. Cutler, Bangor, Me.; executive committee, Messrs. S. H. Boardman, Guilford, Me., Thompson Smith, Woodland, Me., S. J. Hinch, Danforth, Me., Geo. T. Merrill, Patton, Me., John A. Morison, Fredericton, N.B., W. H. Murphy, Old Town, Me., and J. T. Ranney, Portage, Me. These officers are to hold office until the annual meeting in January, 1918.

At a session of the executive, which was held previous to the dinner, the chief business transacted was the acceptance of a large number of new members, and the passing of a resolution to incorporate the Association under the laws of the State of Maine. After the dinner the members listened to a number of interesting speeches. Mr. G. L. Crosman, president of the Portland, Maine, Chamber of Commerce, gave an address upon the value of co-operation. Mr. R. S. Kellogg, Chicago, Ill., secretary of the National Lumber Manufacturers' Association, explained the advantages of organizing an association and outlined the activities of his association. Hon. Geo. H. Prouty, ex-governor of Vermont, an active railroad man, and engaged in all branches of the lumber business, also delivered an excellent address. After the speech-making, the members took part in a general discussion of manufacturing and trade conditions.

Hydro Commission Places Large Order for Chippewa

The Hydro Electric Power Commission of Ontario have placed contracts for their supply of timber for the development work at Chippewa, Ont., through W. J. MacBeth, Toronto. Mr. MacBeth reports that the contracts cover between seven and eight million feet of timber, including hemlock, yellow pine and B. C. fir. The timbers will vary from 2 x 4 in. to 12 x 14 in., and their lengths will run from 10 feet up to 40 feet. The order includes about 3,300,000 feet of yellow pine, 3,500,000 feet of hemlock and 170,000 feet of Douglas fir. Mr. MacBeth's part in the transaction is that of broker, and the stocks are being secured from the following sources:—The yellow pine from the Goodyear Lumber Company, Buffalo, N.Y.; the Douglas fir, from Mason, Gordon & Company, Limited, Montreal, and the hemlock from the Chicago Lumber and Coal Company, East St. Louis, Ill., and Mason, Gordon and Company, Limited, Montreal.

Looking for More Canadian Stocks

L. N. Godfrey, Boston and New York, are extensive purchasers and handlers of Canadian lumber for the markets of the Eastern States. They have wide connections with reliable Canadian mills for handling their entire output, or parts of it, and will buy outright or sell on commission. This firm have been doing business in Canada for many years, and their trade in these lines has been increasing steadily. Recently they have found the demand for their lines increasing to such an extent that they are now on the lookout for anything in spruce, pine, hemlock, lath and shingles suitable for their market, that they can obtain. Mr. John P. Mozier, a native of the United States, represents the L. N. Godfrey Company in the Maritime Provinces.

Sir William Price, Quebec, P.Q.; Alexander McLaren, Buckingham, P.Q.; G. H. Duggan, Alexander Pringle, and Hugh Mackay, Montreal, have been elected to the directorate of the Wayagamack Pulp and Paper Company.

Sudbury to Port Arthur Resources

Outline of Developments that Promise Important Growth Along the C.N.R.—Pulp Production the Backbone

By Cyril T. Young*

North and west of Sudbury, along the C.N.R. Transcontinental, the territory for the first twenty miles has, during the past few years, been logged over for white and Norway pine, where it grew in quantity on the water of the Vermillion and Wahnapitae rivers. Upwards of 1,000 men are north of this section this winter, cutting white and red pine and pulp wood. It will take many years to cut off the virgin white and red pine and spruce pulp wood areas, reached from C.N.R. steel between Ruel and Capreol, a distance of 45 miles. From Ruel north to Groundhog River, a distance of seventy-five miles, the country is timbered almost exclusively with jack pine, which will be used for railway ties and the manufacture of kraft paper.

At the Groundhog River, which is twelve miles east of Foleyet divisional point, the railway enters the Clay Belt area, which it traverses for the next 150 miles. At Foleyet divisional point there is already erected a large barking plant and sawmill. The barking plant consists of a 10 ft. by 30 ft. barking drum, together with nine slasher saws, conveyors, etc., and has a 24-hour capacity of 300 cords. The sawmill has been erected for the cutting of ties and lumber, and the power for the two mills consists of a 400 horse power engine and two large boilers. The plant is erected at the junction of two rivers, and provision has also been made for the economic handling of rail-haul logs and pulp wood. The machinery of the sawmill will consist of a steam feed carriage, steam nigger and loader, a circular (preferred to a band for siding ties), a jumbo edger, combined for cants and boards, band resaw, slashers, trimmers, hog, dynamo, and a four-sided Berlin surfacer and matcher.

Important Pulpwood Resources.

In this immediate section, while there is close to one million cords of pulp wood, yet there is not sufficient on any one stream to warrant the erection of a pulp mill, so that it is necessary to bark the wood for long rail-haul shipments to such points as the Niagara frontier. Across the Clay Belt sections and on the streams flowing through it from the south, where the wood will be intercepted at the railway, careful cruising shows a total quantity of 2,225,000 cords of spruce pulp wood As the rail haul on this, over C.N.R. lines en route to Niagara frontier, or via Ottawa to the Watertown-Carthage section, on a freight rate, which is a commercial one, amounts to $4.20 per cord, the future rail haul of the latent timber resources, on this 100 miles of line, will yield throughout coming years a sum of money in the vicinity of $10.000.000. In the operation of removing the tie timber and pulp wood, together with settlers' traffic, a like amount or more will be obtained in earnings. With this thought in view, the company in the fall of 1916 commenced active operations.

A carload of pulpwood coming from the sidings at each side of the Foleyet plant can be taken from the flat car, put through the rossing drum, and delivered from the conveyor chutes into open rack cars and be ready for shipment within an hour. The railway is in a position, through the pulp companies, to assist the settler by advances in getting out his wood, and as the timber throughout that section consists of both jack pine and spruce, the railway is in a position also to buy the ties from the settler which they require for Eastern and Western lines to the extent of two million ties a year.

The Nepigon-Port Arthur Section.

The recent sales of the Black Sturgeon River pulp concession and the Pic River concession means that two pulp mills are going up in the Nepigon-Port Arthur district alongside the new C.N.R. Transcontinental, and that the immense powers of the Nepigon will be utilized. Cheap power being as essential to a mechanical ground wood mill as pulp wood, the immense water power of the Nepigon tumbling 240 feet from Lake Nepigon, with its drainage area of 8,700 miles, means that the next big pulp and paper development in Northern Ontario may centre around C.N.R. lines in the Nepigon-Port Arthur section. Not only is the power available at the head of the Great Lakes for 1,000 tons a day, but pulp wood is available, and if jack pine is used for kraft, and the plant includes "sulphite" as well as "news," the writer knows from many cruising parties that timber exists adjacent to water and rail to afford such an output for twenty years. While the power of the Nepigon would have to be delivered to high-tension transmission lines to Superior harbors from some of the powers, yet it is to-day conceded that you can grind with motors of "constant speed" with approximately the same efficiency in cost as with the direct hitch to the grinders.

The developments already under way and the arrangements with pulp companies now being made will provide a heavy volume of freight and passenger traffic, and result in the opening up of the 600 miles of virgin timber existing between Sudbury and Port Arthur.

*Manager Eastern Lands, C.N.R.

A Strenuous Year in Quebec Province

Shipping Difficulties Restrained Export Trade—Shell Box and Furniture Industries Active—Pulpwood, Pulp and Paper Showed Great Trade Expansion

Montreal, February 10th; (Special to the Canada Lumberman):—In one respect, the Montreal lumber trade last year was characterized by the same feature as in 1915—dependence for the bulk of the business upon war conditions. The building and extension of munition factories and the requirements for making shell boxes provided the chief buying, as ordinary building was quiet, and those local yards which depended upon this for orders had a lean year. Business with the United States increased, while the export section showed only a slight falling off. On the whole, the year was a good one, and although here and there wholesalers complained of the conditions, the general opinion is that the past twelve months yielded results which were satisfactory.

A comparatively poor opening of the season was followed by improvement, and, in the fall, orders strengthened, one cause being the letting of the most important building contracts of the year. The requirements of the shell box manufacturers for dry stock cleaned up practically all this description of lumber on the market, and as Ontario was in the same position, inquiries were diverted to Montreal. There was, in fact, a general shortage, and under these circumstances prices stiffened considerably. The stocks at the mills fell to a very low point, and some mills closed down owing to a dearth of labor. A scarcity of cars was another adverse influence, shipments being delayed from those points where lumber was available.

United States trade was better than that of the preceding year, prices hardening. For a time there was interruption to the canal traffic owing to an accident, and there was also a shortage of boats, in consequence of which freights advanced.

Hardwoods were in moderate demand, with, however, an irregular market. At one period the buying was very brisk, followed by dullness. Naturally birch was the largest seller, on account of the munition requirements. Teak, which is always a limited market, showed an increase due to activity in shipbuilding. Veneers were in stronger request. The small amount of building had a prejudicial effect on hardwoods, but this was offset by the increased consumption of wood for war purposes.

During the early portion of the year the dimension timber section was dull, but it improved subsequently in consequence of the letting of substantial contracts in which this class of wood was required.

Reports from the province indicate that business revived during the year. Additional building in the chief centres, together with orders for shell boxes and other munition work, resulted in a greater demand for lumber.

All lumbermen are looking for appreciable stiffening in values during the current year. The diminution in the cut, consequent on labor shortage, and the rise in wages and in camp supplies, make for higher costs. If war conditions still prevail, we may expect continued orders for shell boxes and for other munition purposes. With a smaller supply of lumber available, and with manufacturing costs on the increase, there is certain to be a substantial advance in prices.

The Montreal Local Market

Apart from orders connected with the war, local business was slow, particularly at the east end yards. Building was restricted and few large contracts were let except towards the end of the year, when there was an improvement in this section. Most of the season's contracts were for churches and schools, although the work connected with munition and other factories on war orders was a material factor in the year's building programme. Montreal contractors were successful in securing orders for very extensive plants outside the city, as for example, the arsenal at Lindsay and the nickel factory at Port Colborne, which will be carried out during the current year. The figures of the Montreal building permits are sufficient indication of the comparatively poor season. In the year of the boom, 1913, they totalled $27,032,690, whereas, last year they were only $5,334,184, which was a decrease also of $152,037, as compared with the previous twelve months. As in 1915, the retailers bought only when they required stock, and the stocks at the yards are reported to be very low. An increased use of B. C. fir, due in a measure to the educational campaign of the B. C. Government, was in evidence. A larger number of yards stocked B. C. lumber, and in the eastern part of Canada generally the wood from the Pacific Coast is now in greater favor.

Shell and Other Boxes

As in the previous year, the demand for shell box lumber was one of the features of 1916. Without this, trade would have been very dull. During the opening months the output of boxes was limited, but then the Imperial Munitions Board gave out very substantial contracts, and work continued on a large scale until near the end of the year, when instructions were given to stop deliveries on account of the accumulation of boxes. A new type of box, known as the Bethlehem box, was manufactured, three-ply diaphragms being an important part of the work. Dry stock was naturally in heavy request, and as this lumber became very scarce prices moved upwards, so that at the end of the year there was a material difference in values. The quotations of hardwoods, too, were continually rising, and those in the shell box making department did not find the game at all to their liking. In addition, the firms were liable to have their factories shut down almost without notice, should the production get ahead of the requirements. The system of tendering proved of great advantage to the country, but its benefit to the manufacturers is open to doubt. Competition was exceptionally keen, and, in their anxiety to obtain contracts, certain firms tendered at prices which turned out to be unremunerative. These prices served as a ground on which the Imperial Munitions Board based their calculations, and in consequence offers were made which about covered the cost, without taking into account overhead and profit. Some manufacturers who entered into such contracts were unable to fill them, and they had to be completed by others at higher figures. As a result of this experience, and the turning down of work offered at very low quotations, prices improved, and now stand at such figures as to give some return, inadequate, however, the manufacturers say, on business in hand.

The ordinary commercial box trade was much better as compared with 1915, owing to the generally good commercial conditions, and to the diversion to Montreal of large orders for boxes to hold liquor imported into dry Ontario. As building was quiet, sash and door factories were not fully employed, but the furniture and piano factories of the province had a fairly good year, the production being limited on account of labor shortage.

A Small Decline in Exports

Although exports to the United Kingdom, the European Continent, and South Africa decreased by 1,817,008 feet, the season may be considered as having been satisfactory, when the difficulties as to tonnage and freight are taken into account. With the Government's claim on vessels taking prior rank, it was sometimes impossible to secure space, and shipments would have shown a material falling off had not tramps been chartered. The following are the comparative figures for 1916, 1915 and 1914:—

	1916 Ft. B.M.	1915 Ft. B.M.	1914 Ft. B.M.
Watson & Todd, Ltd.	25,131,362	23,445,439	26,165,790
W. & J. Sharples, Regd.	14,039,035	9,847,219	6,196,006
E. M. Nicholson	13,035,542	15,239,280	5,284,731
Cox, Long & Co.	9,814,594	5,130,576	474,818
R. Cox & Co.	8,125,121	8,852,632	11,336,151
J. Burstall & Co.	7,667,826	7,762,353	6,708,937
Bennett Lumber Co.	6,908,157	11,000,000	.....
E. H. Lemay	4,998,003	7,000,000	3,339,582
Dobell, Beckett & Co.	4,854,406	4,446,160	2,677,768
Railways, steamship lines and small shippers	10,123,970	13,791,365	9,117,618
Totals	104,698,016	106,515,024	71,301,401

Decrease, 1916, 1,817,008.

At the opening of the season, exports were very limited, and prospects were by no means bright, especially in view of the advance in freights. At the close of navigation in 1915 they stood round about 200 shillings per standard, but in the new year they opened at 275 to 300 shillings, for any goods sent out from the port via Portland, etc., and when the St. Lawrence navigation commenced 375 to 400 shillings were the figures quoted. With freights on such an unprecedented scale, it was only to be expected that shippers would proceed with caution, as it was problematical how the British consumers would regard prices on this basis. This was particularly so as regards red and white pine, the assumption being that they would, at those prices, turn their attention to Baltic reds. About the end of June the Admiralty unexpectedly released a considerable amount of tonnage, which caused a sensational drop in freights. In ten days rates fell 125 shillings, resulting in a partial demoralization of the lumber market. Shippers were afraid to send goods on a freight market which had so suddenly collapsed, rates receding to as low as 200 shillings for some ports. Lumber buyers, too, held off, uncertain as to how far the slump would go. The position was a most uncomfortable

one, as neither shippers nor buyers were inclined to take chances on a market which had so dramatically changed, and which was so speculative. Gradually, however, confidence returned, and prices strengthened, until they reached 250 to 275 shillings at the close of navigation.

After the first month or six weeks, and with the exception of the period when freights collapsed, shipments went forward with fair regularity, although occasionally the Government claim on space would cause delay, and sometimes all the space required was not available. For the greater part of the year British markets were good, but towards the end of the season they inclined to weakness, with a rally at its termination.

Shipments of spruce were about maintained, and some firms had a considerably better record. The Bennett Lumber Company, which made such a surprising entry into the export trade in 1915, showed the largest falling off. Watson & Todd, Limited, the chief shippers of pine, had a gain of more than 2,250,000 feet. The exports of birch, principally in the hands of Mr. E. M. Nicholson, were interfered with by the license system adopted by the British Government. In order to conserve cargo space, the Government, early in the year, decided to restrict the importation of hardwoods. Later the order as to birch timber was lifted, but Board of Trade licenses for the importation of birch and other hardwood lumber continued to be imposed.

It is too early yet to say anything definite regarding the 1917 outlook. Shippers, however, believe that the situation will not change in the direction of making conditions easier. The decision of the British Government to nationalize shipping will probably mean that tonnage will be as scarce as it was in the past, and that licenses will have to be secured for sending lumber to the other side. Higher prices are certain, and this may act as a deterrent on exports.

Pulpwood in Great Request

Two circumstances caused an exceptionally urgent demand for pulpwood—scarcity in the United States and unusual activity at Canadian pulp and paper mills. Canada probably never sold such large quantities of pulpwood to United States consumers as she did last year, and at very high prices. Owing to sever winter conditions in 1915-16 comparatively little wood was cut over the border, and as the requirements were on a larger scale than hitherto, United States mills found it imperative to come here for supplies. The same condition prevails to-day—in fact, the supply is not equal to the demand. Papers of all descriptions are being very freely sold in the United States, and consequently the mills there are in the market for all the wood and pulp they can secure. On top of this, Canadian mills during the past year—and this holds good at the present time—worked under extreme pressure, for home and foreign consumption, so that there was a continuous and pressing call for pulpwood. One result of this condition is that the settler has been inclined more and more to ignore the speculator, and to make contracts for his wood with responsible people.

In common with other industries, pulp and paper materially benefited from war conditions. It was a year of boom, business and profits being on an unprecedented scale. Concerns which had been earning but comparatively little money were able to make good showings, and as public attention was directed to the profitable nature of the trade, the shares of the companies, good, bad and indifferent, shot up under the wave of speculation. Mr. Carl Riordon, the head of one of the best managed concerns in the country, called attention to the dangerous character of the speculative fever, which is not likely to benefit the industry as a whole.

The industry is making rapid strides, and promises to become one of the most important in the country. Quebec in particular has abundance of cheap water power and a plentiful supply of pulpwood, and with these favorable conditions, the tendency is for United States capitalists to add to the number of mills already established here. Owing to legislation, the amount of pulpwood exportable is limited, and if United States capitalists desire to obtain adequate supplies of raw materials and also to manufacture pulp and paper at a comparatively low cost they must invest their money on this side of the border. Our own people, too, are alive to the possibilities of the industry, and added to their equipment during 1917. Part of the larger profits have been, and will be, spent on these improvements, repairs and extensions, some of them very necessary, and which certain companies were unable to carry out previously owing to the small earnings. A portion of the revenues of 1916 and 1917 will be further utilized to put the mills in a state of efficiency to meet after-war conditions, it being recognized that prices will eventually come down to a more competitive basis.

The activity in Canadian mills was due almost entirely to the war. The United States found a large part of their normal supply of pulp from Norway and Sweden cut off, owing partly to the difficulty of shipping, and turned to Canada, where our natural advantages allow of economical manufacture. The demand for pulp and newsprint was stimulated by the larger consumption of paper in the United States, due again to the war. England, too, was affected by the conditions in Norway and Sweden, and also sent large orders to Canada. Under such circumstances, prices of ground wood and sulphite made continual advances, and stocks at the mills became very small. The newsprint manufacturers operated under great pressure, on account of home and foreign demands. The shortage of pulpwood in the United States and increased price of importing caused some mills in that country to transfer to other grades of paper making, it being estimated that the loss in production of newsprint will be about 500 tons per day on this account. The American Newspaper Publishers' Association are naturally anxious to see a larger production, and have offered to guarantee profits for ten years to a number of new Canadian mills so as to overcome an estimated shortage of 300,000 tons in 1918. On the other hand, some authorities are of opinion that, with the new mills and extensions already provided for, there is no danger of such a shortage, and that developments should proceed on natural lines.

With the larger business offering, Canadian pulp and paper companies found it imperative to make extensions. Thus, the Riordon Pulp and Paper Company converted an output of 80 tons per day of unbleached sulphite into 30 tons per day of high grade bleached sulphite, putting in a new plant at Merritton for this purpose. The company also made extensive improvements at the Hawkesbury plant, including a new supply of water. The Chicoutimi Pulp Company have erected a new plant at Ha! Ha! Bay, under the name of the Ha! Ha! Bay Sulphite Company, while the Chandler Pulp and Lumber Company, another subsidiary, ran to capacity making sulphite. Price Brothers increased their output of ground wood from 135 tons to 220 tons per day and also their sulphite output. The Laurentide Company increased their ground wood output from 220 tons to 250 tons per day and their sulphite to 175 tons per day; and the Bathurst Lumber Company's new sulphite mill went into full capacity; while further extensions are contemplated. The Howard Smith Paper Company purchased the Crabtree mills, and will convert them from newsprint into fine papers. The sulphate mill at Millerton, N. B., which was rebuilt after being burned down, will operate this year. The St. Maurice Paper Company, owned by the Union Bag and Paper Company, have constructed sulphite, kraft, and sulphate mills near Three Rivers, and these will add to the total production of 1917. The Brompton Pulp and Paper Company will put in a new 162-inch news machine, and propose to increase the output of pulp and newsprint. Some important additions to the Abitibi Power and Paper Company, at Iroquois Falls, Ont., are completed. The daily production of sulphite will be increased from 65 to 130 tons, ground wood from 200 to 300 tons, and newsprint from 250 to 450 tons. The Ontario Paper Company, Thorold, installed a new 202-inch news machine, and have ordered a further machine for next year.

Quebec Cullers' Report for 1916 and 1915

The following statement shows the quantity of timber measured through the supervisor of Cullers' Office, Quebec, P.Q., during the years ended December 31, 1916 and 1915:

	—1916.—		—1915.—	
Description of timber.	Pieces.	Cubic ft.	Pieces.	Cubic ft.
Waney white pine	2,374	151.600	7.345	401 680
Square oak	6,560	346,120	2,661	144,520
Square elm	1,708	72,160	1,094	48,960
Waney ash	52	1,680	48	840
Waney butternut	1	40	.....	.....
Waney birch	2,190	46,880	2,355	48,880
Waney maple	....	.....	34	1,240
Waney walnut	1,010	15.360	528	9,400
Waney cherry	1	40	.....	.....
Square hickory	20	840	65	3,040
Round aspen logs	....	.....	3,317	12,680
Total	13,916	634,720	17,447	671,240

New Shell Box Contracts

Shell box contracts have recently been given out by the Imperial Munitions Board for several varieties of boxes, in large quantities. These include the following:—

Two-round 6-inch boxes at from $1 to $1.10.
One-round 8-inch boxes at $1.45.
One-round 9.2-inch boxes at $1.75..

Mr. Jules Ayer, director of Charles Boss & Co., lumber importers, London, England, is on a visit to Canada and the United States. The firm is represented on this side by the Bennett Lumber Company, Limited.

Charles S. Boehmer, of A. & C. Boehmer Company, box makers, Kitchener, Ont., died suddenly of heart failure recently, in his seventy-third year. The late Mr. Boehmer was one of the pioneer box makers of Ontario.

Spanish Mills Company's plant at Cutler, Ont.

Spanish Mills Company's plant, Aird Island, Ont.

Sawmilling Operations at Cutler, Ont.

One of the most extensive and important industrial enterprises on the north shore of Georgian Bay is that of the Spanish River Lumber Company, Ltd., whose head offices are located at Massey, Ont., on the Soo branch of the Canadian Pacific Railway, about eighteen miles east of Georgian Bay. The Spanish River Lumber Company, Ltd., have been operating from this point for about thirty-five years, and since 1904, when its affairs passed into the hands of its present owners, the operations have been constantly enlarged, until to-day the company are among the largest operators in the province. Their timberland holdings exceed 1,000 square miles, and, under normal conditions, they operate from eight to fourteen lumber camps annually, besides employing a number of small jobbers. Their annual production amounts to several hundred thousands of logs chiefly white and Norway pine.

In the Canada Lumberman of September 1, 1916, we published an interesting description of some features of the logging operations of the company, together with a brief reference to their two plants. This information we are now able to supplement with further details that are of interest to our readers.

Equipment of the Mill.

At Cutler, Ont., on the north shore of Georgian Bay, the Spanish River Lumber Company, Ltd., have been operating, for two years past, a fine new mill, which was completed in the early part of the summer of 1915. This plant is equipped with two single-cutting Waterous 8 ft., new model, band mills, with Prescott carriages; two 11 in. gunshot steam feeds, and lumber sorting table, furnished by the Waterous Engine Works Company, Brantford, Ont., who also furnished the complete filing room equipment and a miscellaneous assortment of live rolls, transfers, etc. The equipment also includes a Mershon 7 ft. vertical resaw and a Diamond Iron Works 6 ft. horizontal resaw. The plant has a capacity of 125,000 feet in ten hours.

The mill at Cutler, which was built to replace one that was destroyed by fire in March, 1915, is a frame building, 56 x 216 ft., with an addition for a lath mill, 36 x 80 ft., and a sorting shed and table, 30 x 224 ft. As will be seen from our illustration, the mill is designed to be high and roomy, with plenty of light and ventilation. It has cement foundation throughout and cement floors on the ground level.

The lath mill is equipped with two Garland bolters and two Payette lath machines, together with the necessary machinery and sorting facilities for making pickets.

The plant obtains its power from a 600 h.p. twin Houston, Stanwood & Gamble engine, and nine 6 ft. x 18 ft. boilers.

The mill pond in connection with the plant at Cutler has a capacity of 70,000 logs.

The plant at Cutler has excellent shipping facilities, both by rail and vessel. The lumber docks and trams have been completely rebuilt, and there is now accommodation for 12,000,000 feet of lumber for vessel shipment, which is supplemented by a land yard and trams for an additional 10,000,000 feet, which is available for either rail or vessel shipment.

The plant operated by the company at Spanish Mills is situated at the eastern end of Aird Island, about eight miles distant from Cutler. The mill was built in 1880, and has been in operation continuously since that time, with the exception of the winter seasons. At different times it has been extensively remodelled. Its equipment to-day includes a Waterous single-cutting band mill, a Diamond Iron Works twin band, Wickes gang, Prescott rift edger, and Diamond Iron Works horizontal resaw. The capacity of this plant is about 190,000 feet in ten hours.

The greater portion of the logs for these two mills comes down the Spanish River and through the Spanish boom. These are towed to the mills in rafts, principally by the company's tug, "Fanny Arnold." Quite a number of logs are also towed to the mills from the mouth of the Serpent River and from Fraser Bay and the vicinity of Killarney.

In their logging operations, as in the other operations of this company, the most up-to-date methods are adopted, including the employment of a three-ton Packard truck for conveying supplies from the headquarters at Massey to the company's camps.

Sorting shed and tramways at the Cutler mill.

Filing room at the Cutler mill.

British Columbia's New Chief Forester

M. A. Grainger, B.C's new Chief Forester.

In the Canada Lumberman of January 15 we were able to publish a brief report to the effect that Mr. M. A. Grainger had been appointed chief forester for British Columbia. All our Western readers will realize that Mr. Grainger's promotion is a well deserved one. Since Mr. H. R. MacMillan, the former chief forester, left the service of the department Mr. Grainger has been acting chief forester. In this way he has been fulfilling his new duties for nearly two years past. Mr. Grainger's training and long experience with the branch fitted him peculiarly for his work. He has been in an important position in the branch ever since it was created.

Mr. Grainger is a native of England. He graduated from King's College, Cambridge, where he was twenty-first wrangler in mathematics in 1896. He came to Canada in 1897, and proceeded to the Klondyke, being one of the first to take part in the famous rush to that part of the country for the discovery of gold. He carried on mining business there for some time, and, on the outbreak of the South African War, returned to England and enlisted as a private in Roberts' Horse, serving throughout the remainder of the war, and receiving the South African medal with six bars. At the conclusion of the war he naturally returned to British Columbia, and again took up mining. He subsequently became engaged in logging on the coast. For several years he followed this occupation, being engaged chiefly at Knight's Inlet. He also performed occasional newspaper work for the London Times and other Old Country papers. About the same time he published an interesting book, entitled "Woodsmen of the West," into which he wove much of the romance and the hardship and drudgery of the woodsman's life, and dealt also with the wonderful forest resources of British Columbia.

When the British Columbia Forestry Commission went through the province Mr. Grainger acted as its secretary, and in the preparation of its report his mathematical attainments were of great assistance. He is responsible for the graphic and illuminating diagrams which appeared in that report, as well as those which have been made use of annually since that time in the reports of the branch.

In the drafting of forest legislation by the British Columbia Government Mr. Grainger has had an important part, having given the government much assistance along this line. He also assisted greatly in the organization of the forest branch and, when this work was completed, he was appointed assistant chief forester, in charge of the record office, a position which he held until he took over the duties of chief forester. Mr. Grainger is an exceedingly capable official, courteous to the public, and has an intimate knowledge of the timber resources of the province.

Canadian Lumber in the Argentine

The present condition and future prospects for the trade in Canadian lumber are not very bright for the moment, according to a report from B. S. Webb, acting Canadian trade commissioner at Buenos Ayres. In a recent report he says:

The imports of spruce from Eastern Canada have fallen off almost entirely, and perhaps the reasons for this tendency should be enquired into. Briefly, it is because ocean freight rates have reached a point which allows Brazilian pine to be brought in so much cheaper as to compensate for its obvious inferiority as a construction timber.

The importation of lumber, particularly Canadian spruce and the yellow or pitch pine from the gulf ports, has been almost a monopoly of some six or seven large firms (mostly British) possessed of adequate capital for financing and freighting ship cargo lots outwards, and storing and marketing the lumber here. Outward charter rates are to-day from 400 to 500 per cent higher than those ruling before the war, and one importer has paid as much as $55 per 1,000 feet. This increased freight, added to the f.o.b. value of the lumber, is just about sufficient to double the c.i.f. cost of the lumber here.

The advent of Brazilian pine into this market has affected the six or seven large, or regular, importers in two ways—it has taken from their hands what was, in practice a monopoly; and it has forced them to sell stocks, in some instances at a loss and in others at cost price. They have occasionally been forced to sell at a loss in order to liquidate accumulated stocks; and it will not be difficult to understand that it is in their present interests to sell Canadian spruce even at cost price, and to continue doing so, rather than to allow their trade, which by reason of the capital and organization required was confined to them, to slip into other channels.

One firm, perhaps the largest importer here, states that they have lost as much as $30 per M. feet on some shipments, and that others have had to be sold for the value of the freight paid on them. Another firm claim to have lost $230,000 on lumber during the last two years, although this figure would appear to the casual observer to be rather high. For the moment, however, it is certain that none of the large regular importers are likely to manifest much interest in the business of bringing down cargo lots of spruce. An old-established regular importer of pitch pine and spruce estimates that in order to compete successfully with Brazilian pine Canadian spruce should cost f.o.b. somewhere near $19 and $21 per M. feet, and freight charges between $15 and $21 per M. feet.

Twelve Months' Exports of Forest Products

Canadian exports of forest products during the twelve months ending November were valued as follows: 1916, $54,515,579; 1915, $48,925,230; 1914, $41,954,640; 1913, $42,875,089. Imports of wood and manufactures of wood into Canada during the twelve months ending November, 1916, were valued at $11,083,467, of which $10,079,625 came from the United States and $366,143 from the United Kingdom. The corresponding value in 1915 was $8,307,785.

The exports of wood and manufactures of wood from Canada during the twelve months ending November were valued as follows:

		1916.		
Articles exported.	1915.	Total.	To Un. Kdm.	To U.S.
Logs	$ 1,320,736	$ 897,507	$ 69,764	$ 827,230
Lumber—Deals, pine.	1,259,602	1,478,944	1,423,434	46,123
Deals, spruce and other	9,771,297	9,143,570	7,695,669	311,384
Laths, palings, pickets	2,310,658	2,222,741	17,483	2,197,875
Planks and boards	21,511,055	26,357,407	1,807,375	22,466,764
Shingles	3,460,839	3,742,671	.....	3,706,517
Timber, square	486,078	163,780	126,883	34,007
Wood blocks for pulp.	6,180,447	6,716,704	.....	6,716,704
Wood pulp	9,157,442	16,680,984	2,140,303	13,732,004
Wood and mfs. of, total	$58,956,908	$72,353,136	$15,981,079	$51,690,579

Canadian Exports of Wood and Its Products

Canada's exports of lumber for the six months ending September 30th, 1916, and for corresponding periods in 1915 and 1914 were valued as follows:—

	1914		1915		1916	
	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce
Countries	$	$	$	$	$	$
United Kingdom.	5,136,301	50	9,061,630	2,030	8,511,117	14,589
United States	12,944,467	12,624	13,917,503	4,531	15,781,395	2,771
Other countries	757,715	286	1,074,865	.....	1,834,924	.....
Totals	18,838,483	12,960	24,053,998	6,561	26,127,436	17,360

The values of exports of timber were as follows:—

	1914		1915		1916	
	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce
Countries	$	$	$	$	$	$
United Kingdom.	326,989	185,606	326,026	294,085	114,003	163,301
United States	3,363	60	8,144	180	23,082	319
Other countries	7,211	.....	.....	.....	2,890	18,967
Totals	337,563	185,666	334,170	294,265	139,975	182,587

Exports of unmanufactured wood were valued as follows:—

	1914		1915		1916	
	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce
Countries	$	$	$	$	$	$
United Kingdom.	5,479,477	185,656	9,437,991	296,115	8,717,370	179,917
United States	17,609,525	13,220	18,025,147	5,099	20,678,298	3,090
Other countries	864,435	669	1,075,987	.....	1,844,376	18,967
Totals	23,953,437	199,545	28,539,125	301,214	31,240,044	201,974

Total exports of wood and manufactures of wood were valued as follows:—

	1914		1915		1916	
	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce
Countries	$	$	$	$	$	$
United Kingdom.	6,213,975	195,647	9,910,871	297,681	10,384,154	181,666
United States	21,124,490	72,717	21,676,786	57,909	27,468,564	35,669
Other countries.	1,131,733	5,867	1,505,698	1,858	2,505,373	19,445
Totals	28,470,198	274,231	33,093,355	357,448	40,358,091	236,780

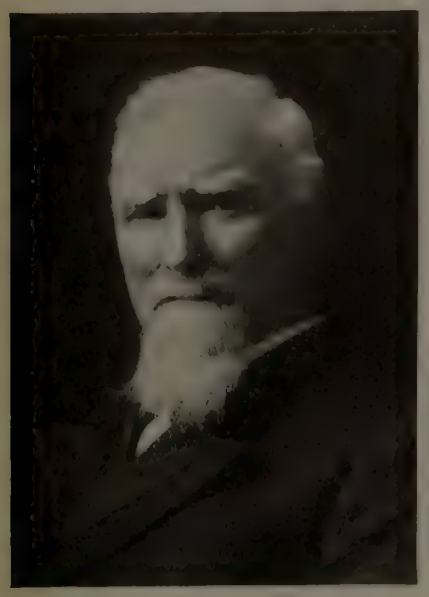
Robert Dollar's Early Days in Ontario

An Account of His Experiences on an Eventful Trip from Serpent River to Camps on East Shore of Georgian Bay

Editor Canada Lumberman:—

Sprague, Ont.

A few weeks ago I was travelling on the Soo line of the Canadian Pacific Railway in company with a brother lumberman, Mr. W. J. Bell, of Sudbury, Ont., and on the train we met Mr. Robert Dollar, of the Robert Dollar Company, San Francisco, Cal. The train was then running along Spanish and Serpent rivers, and Mr. Dollar, who was reminded of his early experiences in that district, told us about many of the interesting events of the early days when he was lumbering in Ontario. He promised also to send us an account of one particular trip which was more interesting and exciting than most of the others. True to his promise, he sent me the accompanying letter describing the trip.



Robert Dollar

Our meeting and acquaintance with Mr. Dollar was particularly interesting, as Mr. Bell and I have lumbered through most of the country referred to in Mr. Dollar's sketch. Mr. Dollar's name requires no introduction to the lumbering industry. He has lumbered practically from the Atlantic to the Pacific and is today one of the great outstanding figures on the North American continent in the lumbering industry.

I feel, in offering this outline of Mr. Dollar's experience to the Canada Lumberman, that the readers of this journal will find it extremely interesting. Yours very truly, J. J. McFadden.

Mr. Dollar's Story

Passing recently through Western Ontario in a comfortable Pullman with dining car attached and crossing the Spanish and Serpent rivers, brought forcibly to my attention the tremendous changes that have taken place in this part of the country during the last 35 years. Then there was not a white man on the shore of Lake Huron except a few stragglers at Killarney and Spanish River Mills. At that time I was lumbering on the Serpent River, some 30 miles from Lake Huron. We sent in the men and supplies in a steamer in the fall of 1881, built a warehouse at the mouth of the river to hold our year's supplies, and boated supplies up the river to where the camp would be built, a sufficient quantity to do until the snow and ice made it possible to haul the balance with teams. The camp was cut off from all communication from the outer world.

On February 21st, 1882, I started from Parry Sound with a team of horses to visit the camp. The entire distance of 250 miles was made on the trackless ice, from Parry Sound, Ont., the time occupied being eight days. We slept out every night and the canopy of Heaven was our roof. The weather was intensely cold, being below zero all the first three days, but during the last day it rained. Not being prepared for such a change in the weather, we had a miserable time of it. Sleeping out in winter in a heavy rain storm is anything but comfortable, to say the least. The weather was so bad that I left the team and teamster at our warehouse at the mouth of the river and made the last 35 miles on foot in the soft slushy snow. It was hard walking and I was glad to get to the camp, while the men were delighted to get news from the outside world.

I found the work had gone on successfully, and we had a lot of fine timber on the ice ready to be floated to Lake Huron, where it would be loaded on vessels and taken to Kingston at the foot of Lake Ontario. There it would be rafted and run down the rapids of the St. Lawrence, then towed to Quebec and be again loaded there into ocean-going ships for Liverpool, where it would again be formed into small rafts and taken up the canal to Manchester to be sawn up into sizes for making cotton spinning machinery.

I spent three weeks looking over various tracts of timber, but could not find the sized timber required for this trade, namely, 21 inches average diameter. So I decided to shift my operations to Michigan, where the desired size of trees could be got. It was then near the breaking up of winter, and we had twelve more men than was necessary to drive the timber down the river, so I started out with a team of horses and the twelve men, intending to return as I came, on the ice along Lake Huron and the Georgian Bay to Midland. But the fates decreed otherwise. The first night we got, with considerable difficulty, to Little Current on Manitoulin Island, on account of the ice having melted in the recent spring weather. Finding it impossible to go farther with the team, I decided to send them back to the camp, and tried to induce the men to return, as I could see that we were in for a 250 mile walk. Moreover, there was uncertainty as to whether the ice would remain long enough to make the trip. The men all decided that if I could do it they could. I tried to explain to them that it was a case of "have to" with me, but that they could return and work in the camp until navigation opened, whereas I had various camps in Muskoka and Parry Sound district, and it was necessary for me to be on hand to arrange about getting the logs driven when the water was high. All of no avail; they were determined to get out to civilization. So I bought a few hand sleighs, put on them what was actually required for the trip and we started out, pulling the sleds on the ice. The third day out a severe snow storm was raging, and it was impossible to travel, so we had to lay up all day long, much against our will, as I found we barely had provisions enough to take us to Byng Inlet. I had given up the idea of going to Midland, as the former place was much nearer. Next morning we were up before daylight ready to start, when we discovered that the ice had gone out during the storm. There we were on the bleak and barren shore of Georgian Bay and had now to foot it through the trackless forest. We reached French River which we had hoped to cross on the ice, but to our dismay, it was wide open, the ice having gone out with the previous day's storm. So we had to cut logs, pull them to the water and make a raft of them. This took an entire day and was attended with much danger, as the first raft capsized, and two of our men narrowly escaped perishing in the cold water. Then we had to cut larger logs and make a stronger raft. The only tool we had was one axe. We secured the logs together with twisted withes. Well, we all got across alive, and to our delight, found the ice was still fast inside of the islands. So we were able to make much better time, but I found our provisions were about exhausted. So I had all the flour baked into cakes and divided equally. It was just enough for a small meal. I told the men that the nearest civilization was three days' journey, and that each one should divide his cake into three. But they nearly all ate it up at once. I divided mine into three days' portions, each piece was about one inch square.

The ice was getting bad and several of us went through it. I kept in the lead and got more wetting than the rest. The nights were very cold, so we suffered a great deal; wet in the afternoon and freezing at night. The frost hardened the crust, so that in the forenoon we had fairly good walking, but in the afternoon every footstep went through the snow and into the water on top of the ice. I remember I was wearing dear skin mocassins which kept the water out as well as a pair of socks would. The men got tired out and it was only by encouraging and urging them on that we were able to make any headway, as many of them wanted to lie down and give it up.

The last day before arriving at Byng Inlet I told them I would go on ahead and get provisions sent back to them with Indians, and told them to follow my track. Before noon I came across an Indian wigwam. A squaw and two children were the occupants. She could not talk English or French, so I made signs to her that I was hungry, and tried to make her understand that there were twelve more coming. I found she had about twenty pounds of flour, but no meat of any kind, so she started in to make slap jacks. I did not eat and encouraged her to make more, until, about three miles off, our men came in sight. I took her out and showed her the crowd, when she held up her hands in despair. I put aside enough for herself and the children for one day and made her understand that I would send her plenty the following day. So she went to work and baked the balance of the flour, and to my surprise she went out into the snow and dug up a white fish three feet long, and put it into a pot of boiling water, scales, guts and all. This was as sweet a fish as I ever tasted.

In the meantime I saw the very slow progress of the men. I got some birch bark and made a big smoke. The effect was magical, I could see them immediately begin to step out. When they came they ate everything in sight, but I prevented them from leaving the squaw without any. I almost had to use force to get them to start out for Byng Inlet, ten miles distant. We found a trail which helped us out, and reached the mill at ten at night. There we got plenty to eat and washed our hands and faces. The first wash in two weeks. We were more like negroes than white men. A few days before it looked like a physical impossibility to come out of our trails alive. I sent an Indian back to the squaw with four times as much as we used of

hers. I left our men at Byng Inlet to rest for three or four days before proceeding out.

I was up bright and early next morning, as I knew I was urgently required to start the drives. I had a camp at Shawnigan and started out on snowshoes that I borrowed. The distance from Byng Inlet to Shawnigan through the woods was 45 miles; no road, not even a trail. At dark I was able to strike an unused government road leading to our camp, which I reached after everyone was in bed. I looked over this timber and works in the forenoon (we were getting out what was called "Tonawanda timber," which was got out the full length of the tree. In the summer I towed this across Lake Huron to Detroit, where I sold it). At noon I took one of the teams to carry me to Rosseau, which I reached after midnight. The winter roads had broken up and I could not get anyone for love or money to take me to Bracebridge, Muskoka District, my objective point, so I started out on foot again, for a 35-mile tramp. I well remember the mud was ankle deep in places, and with dirty clothes and deer skin mocassins I certainly was a tough looking tramp. Next morning I was busy hiring men for the drives for the various camps, apparently none the worse after about as hard an experience as lumbermen, even in those hard days, ever had.

Pulp and Paper Association Annual

Unprecedented Year Reported—Progress of Various Departments—C. Howard Smith Elected President

The Canadian Pulp and Paper Association held its annual meeting on January 31 at Montreal. Captain J. H. A. Acer presided. The reports of the various sections showed that the industry had had an unprecedented year, and that the outlook is exceptionally bright.

Mr. C. Howard Smith, the vice-president, reviewed the year's work, stating that the prices of paper in Canada today were lower than in any other country in the world, notwithstanding that the capital cost of paper mills in Canada is considerably higher than in other countries, as practically all paper mill machinery is imported and pays a duty of 35 per cent. The exports of paper from Canada had increased materially, principally in news print. The imports of paper into Canada had decreased, and a number of mills were taking up and manufacturing lines that had heretofore been imported.

The report of the news print section, presented by Mr. A. C. Campion, stated that every mill appeared to be overfilled with tonnage, and orders and contracts had to be turned down because of inability to fill them. In almost every instance in the renewing of contracts for 1917, they had to restrict the tonnage to last year's basis, being unable to consider the extra tonnage invariably asked for by the individual publishers. He estimated Canadian production of newsprint, east of the Rockies, at about 620,000 tons annually. The Canadian consumption was 120,000 tons per year, leaving 500,000 tons per year to be exported. Of this, about 420,000 tons, equaling 84 per cent., went into the United States market, leaving about 80,000 tons per year, or 16 per cent. of the surplus, for export to overseas markets.

The range of prices had been exceedingly irregular and unsatisfactory during the past year. The markets were the most erratic in probably the past thirty years. Costs of raw materials and all supplies had increased in such proportions as to make 1916 an unsatisfactory and unprofitable year for the newsprint manufacturers.

In the report of the chemical pulp section, drawn up by Mr. Carl Riordon, it was stated that war conditions created the largest demand in the history of the business, and the year ended under the highest prices ever known. The construction of new sulphite plants and the plans for construction of new mills in Canada was simply enormous. Without going into particulars, on October 20th a list gave a new production in anticipation of 900 tons daily in Canada, including British Columbia and the United States, which had now been increased to 1,300 tons daily, all of which, excepting two mills, were for ordinary news sulphite and kraft. He suggested the formation of an export committee to deal with the largely increased production. Mr. Riordon also advocated co-operation to improve the quality and diversify the grade of pulp as much as possible.

Mr. J. A. Bothwell, chairman of the mechanical pulp section, said that owing to the scarcity and high price of chemical pulp at the present time, the mills purchasing their different kinds of pulp had found it necessary to use a larger percentage of ground wood than heretofore, even to the extent of closing down their machines to make this practical. The quantity of ground wood produced during the present year would depend on the pulpwood situation. Owing to the scarcity of men and the excessive amount of snow in the woods he looked for a material shortage of pulpwood during the coming year. In fact this was going to be the case to such an extent that mills purchasing their entire wood supply would find themselves shut down, for want of pulpwood, by September 1st, 1917.

Mr. Ellwood Wilson, Chief Forester for the Laurentide Company, Limited, presented the report on forest and forest protection matters. He referred to the bill passed in 1916 for amending the Quebec forest fire laws, and to the commencement in New Brunswick of a forest survey and inventory, which was being done in an accurate way never before attempted. The better preservation, closer utilization and perpetuation of the forests were receiving more attention at the hands of the members. Three of the companies had complete maps and inventories of their timber resources, and another was contemplating such work. Two had commenced large scale planting operations and a third was thinking of commencing. The question of inventories of timber resources was an important one, for no company which was ignorant of the amount of timber it possessed could be said to be well managed, or in sound condition, nor could it lay out its work for the future in a businesslike way. The utilization of timber resources was still, with three or four exceptions, carried on in an old fashioned and wasteful manner to the detriment of the forest; and the logging costs of the future would be greatly raised by such methods.

Mr. Wilson spoke of the large depreciation in the value of forests, owing to the way in which the work of cutting had been carried on. Indiscriminate cutting of easily accessible trees had been done by settlers, with the result that the companies would have to go much farther back for their supplies. Logging costs would increase with a jump. He suggested that economies in logging could only be effected by combined action. The scarcity of pulpwood was one of the factors in the high cost of paper, and this scarcity would increase.

Dr. J. S. Bates presented the report of the technical section showing what had been done in the way of promoting technical education. Other sections reporting were: Book and Writing, Mr. I. H. Weldon; board, Mr. J. F. Taylor; coated, Mr. F. H. Gage; and felt, Mr. Graves. Freight matters were reported on by Mr. A. D. Huff and tariff questions by Mr. C. H. Smith.

Resolutions Adopted

Resolutions were passed urging upon the governments of Quebec and Ontario the necessity for an inventory of the forest resources of the province and the adoption of a definite policy of land classification so that no non-agricultural lands shall be opened for settlement; upon the province of Quebec the adoption of a regulation urging all license holders north of the St. Lawrence River, who are not already members of recognized co-operative protective associations either to join existing associations or form asociations in their districts; congratulating the Department of Lands, Mines and Forests of Ontario on the organization of a proper system of fire protection and asking that such department be put on a strictly civil service basis; and also congratulating the Department of Lands and Forests of Quebec on having amended the laws of the province in regard to forest fire protection and on the introduction of a law compelling settlers to obtain permits before burning their clearings, and urging the strict enforcement of these laws by competent men in all parts of the province.

It was further decided to appoint a committee to deal with questions relating to wood for pulp and paper, following out a suggestion of Mr. Ellwood Wilson.

The dues are to be raised to $50 for all members, in addition to the following assessments on the normal annual quantity of product available for sale; on mechanical pulp, one-quarter cent per ton; chemical pulp, newsprint, board, wrapping, sheathing and miscellaneous one-half cent per ton; on book papers, three cents per ton; on writing, coating and tissue papers, five cent per ton.

Mr. C. Howard Smith, of the C. Howard Smith Paper Mills, Limited, was elected president, and Mr. F. H. Anson, of the Abitibi Power and Paper Company, Limited, vice-president.

Boston Lumber Firm Wants Canadian Stocks

The Blanchard Lumber Company, Boston, Mass., one of the oldest firms of manufacturers and dealers in rough and finished lumber in the New England States are well known to the Canadian trade, as they have been buying lumber in Canada for over 25 years and distributing it throughout New England and New York States. They have their own mills at Portage, Maine, and handle eastern spruce, hemlock, pine, Douglas fir, red cedar shingles, and maple for flooring. They report that they are finding a good demand for both eastern spruce and British Columbia red cedar. The increasing demand for these woods has induced the Blanchard Lumber Company to seek for increased Canadian connections, and with this object in view they are searching the Canadian markets for all kinds of lumber, in particular for eastern spruce and B. C. red cedar. Those of our Canadian readers who are interested in making good connections in the Eastern United States will find this a favorable opportunity for doing so.

New Brunswick Operations in 1916

Output About Six Hundred and Thirty Million Feet—High Operating Costs and Freights—1917 Outlook

According to the report made by the Forestry Branch of the Dominion Department of the Interior, the entire cut for New Brunswick amounted to 635,518,000 in 1915. It is estimated that the cut for 1916 was about the same. Fully one-half of this total has to be credited to the North Shore, comprising the towns of Campbellton, Bathurst, Newcastle and Chatham, where the logs cut on the Restigouche, Nepisiquit and Miramichi rivers are sawn.

Probably last year's output was slightly under the previous twelve months' production, but the enhanced prices have more than made good any deficit in quantity. Increase in selling price, however, has not kept pace with extra costs, and satisfaction with the past season's record is considerably tempered with apprehension for the future. Fear is entertained that prices will not advance sufficiently to cover the tremendous impetus which world conditions have given to the cost of all materials and labor that go to the making of lumber. While 1916 prices held a promise of better times for the lumberman, he has been accustomed so long to discouraging figures that he is wary of indulging in dreams of what he considers an adequate return on his money.

So far as the North Shore is concerned there does not appear to be much room for pessimism, and there is strong reason to believe that 1917 will be a time of recompense after the lean years. To the increased cost of labor and material there have to be added the difficulties due to the severe winter we are experiencing, and which is certain to result in the dearest lumber ever known in these parts. One large concern was compelled in January to take its men out of the woods, with the exception of those engaged in hauling logs, owing to the depth of snow making it impossible to continue cutting. Another firm reports that for the past six weeks the snow on their limits has been too deep for making logs, and they have been devoting their entire energies to hauling the logs cut before the heavy snow came. This is proving a very expensive operation as all the roads have to be shovelled, and the season's cut in this particular instance will be curtailed tbout 40 per cent. in consequence. These conditions apply throughout the North Shore where the climatic conditions are always more severe than further south. With wages showing a marked tendency to advance still further, the outlook is not bright, if that were the only viewpoint, but one promising feature in this phase of the situation is that there will be an abundance of water for the spring drives, and operators calculate to save money on the cost of getting their logs to the saw.

Our manufacturers' idea is that an advance in selling prices of 50 per cent. will not be too much to cover extra outlay and secure a fair margin, but even a manufacturing cost of from 30 to 50 per cent. above normal could not guarantee this by itself. Happily there are other factors in the situation that may do so. In the past, the bulk of the North Shore cut has gone to the neighboring American market, but 1916 saw a large proportion of the trade diverted to Europe where better prices prevailed, and where the English and French Governments, who were by far the largest buyers of North Shore lumber, provided vessels for transport. As the American wholesalers have not maintained their stocks of New Brunswick spruce and pine, and as there are not effective substitutes for all grades of these materials, our friends over the border are bound to come back with less conservative ideas as to the value of our lumber. This will be still further ensured by the fact that the allied governments will continue their buying probably on a larger scale than ever.

A Profitable Year Anticipated

Recent enquiries from the United States and Europe have brightened expectations of a profitable year, and several large operators are showing an indecent haste in responding to requests to negotiate for the disposal of their entire output for the coming season. Rumors of a large French contract calling for one billion feet of northern grown spruce, and concerning which one big operator on the North Shore has been approached, have been current of late. Even if, as latest reports aver, the authorities have decided to purchase northern pine, the placing of the contract will inevitably advance prices for every mill in Canada, particularly those which have been supplying the American importers whose home supply will be drawn upon to the above extent.

Complete figures giving the total cut on the North Shore for 1916 are not available, but 108,000,000 feet were rafted through the Restigouche booms, about 40 per cent. spruce and the balance cedar. The Nepisiquit contributed 70,000,000 feet and the Miramichi about 120,000,000 feet. Although considerable stocks are in the yards throughout the district, it is generally understood that the lumber is largely sold, and there is certainly no surplus in this district. The idea of most manufacturers is that they should get from $8 to $10 advance for their 1917 cut, but so far as can be discovered very few important sales have been made yet. Buyers hesitate to face the high prices, and the lumbermen who can afford to hold are making a strong effort to get quotations to a point where they can get back at least a portion of their increased outlay.

More and more every year spruce is being made into pulpwood, and the production of this article is an increasingly important feature of the North Shore lumber trade. Pulp mills already established are constantly spreading their nets for raw material wider and wider, and, when the projected new mills are erected, the demand will increase. The pulp industry is a direct means of cheapening cost of lumber production to some extent, and it has also proved an unquestionable boon to the farmer, encouraging him to cut timber, now that he can sell the entire tree, and enabling him to turn the hitherto comparatively unproductive winter months to account. He now reaps a crop where before he merely removed an obstruction.

Another feature of the past year has been a marked revival in popularity of the North Shore white cedar shingles, and this in face of the able advertising campaign organized by the "other roofing" fellow. So great has been the demand for the higher grades that some of the larger manufacturers have turned down considerable orders which did not call for a proportion of lower grades with the higher. Now that the cedar shingle is coming into its own again, it would be a pity not to ensure that it won a permanent place in the estimation of the public, and the action of those manufacturers who are planning to maintain and increase the extra footing which the revival has given them, by advertising, and other means, is to be commended. Large as the sales were last year it is certain that a record will be reached this coming season. Laths were normal and practically the entire output was disposed of in the United States.

Freights unfortunately show no signs of receding from the high figure they reached last year, and very few charters are reported taken so far. While a few are reported placed at 325 shillings, vessels have asked as high as 400 shillings to 450 shillings, and it is safe to say that if these askings are maintained there is no known market that can carry them. This fact, however, is giving no concern, unless to the shipowners, as it is known that the bulk of the shipments for 1917 will be for the English and French Governments, who will commandeer what bottoms they may require to move the stock.

A New Brunswick Manufacturer's Review

A prominent north shore manufacturing firm, in a report to the Canada Lumberman, state that the season of 1916 was a good one for all interested in the lumber trade in the Province of New Brunswick, from the logger to the shipper. From Chatham north they state that they do not know of a single mill that had stock of any kind left on its hands at the beginning of 1917. Their report in detail regarding the situation is as follows:

During the summer it became extremely difficult to dispose of lath, and the price was low, but during November buyers came in from the United States, Montreal, and Toronto, and the bulk of the lath on the north shore was purchased at $2.50 f.o.b. net cash. Other stocks were sold at $2.60 and a sale at the end of 1916 was put through at $2.85, all of which are good prices for this stock.

Cull stock, which had been a slow seller during the past two or three years, also improved, and the demand was good enough to dispose of all stocks readily. Most of this went to Montreal and Toronto, and some of it as far west as London, Ont. Manufacturers all report that this line of stock has been cleaned up better than ever before. At present spruce boards are in particularly strong demand, and are bringing prices that would have been considered good for merchantable deals a year ago.

Operations in the woods during the present winter are subject to many difficulties. The uncertainty of the future did not encourage operators to face the extra cost that would be entailed in taking out logs. For this reason the sawmill owners will have considerably reduced operations. It is difficult to estimate the average of the reduction, but it is probably in the neighborhood of about 30 per cent. Men for work in the woods were vary hard to get, and those obtainable were of an inferior class, but they asked for wages running from $38 to $45 per month, which is an increase of about 35 per cent. over the wages of the previous winter. It is generally estimated that the cost of woods operations this year will be at least 35 per cent. higher than it was a year ago. Not only have the operators been obliged to face these difficulties, but they have had the further difficulty of keeping men in the woods. It has been practically impossible to keep the crews working to full capacity, and only under such conditions can an operator obtain economical work. This inferior grade of men, receiving extra pay, have been very indifferent as to the permanence of their employment, and almost every day a few men would be dropping out, thus embarrassing the operators greatly. The result was that at the close of 1916, when most operators expected to have their yarding completed, practically none of them had been able to do so, and most of them were a full month behind in this work.

It is a matter of much difficulty to predict the future of the trade,

but unless manufacturers can obtain from $5 to $6 per thousand more for their stocks than they obtained last year, they will not find that their operations have been satisfactory. No reports had been received up to the beginning of the present year of mill stocks having changed hands. This is an unusual situation. The mill man has hesitated to name a price, and buyers have been equally reticent. Last year band and gang-sawn deals, 50 per cent. 9 inch and up, sold for $20. Manufacturers are hoping that the British Government will step in and relieve the situation by buying up stocks at remunerative prices.

As to the outlook for trade when the war comes to an end, New Brunswick manufacturers agree in anticipating that the business will be improved greatly by a reduction in operating costs, as they expect labor to be more plentiful and general producing conditions to revert to those which prevailed previous to the war.

The situation with the pulp mills is quite different from that with the sawmills. The former are getting a high price for their product, and are comfortably able to pay extreme prices for logs. Some of the pulp producers are taking out the largest quantity of stock they have had in a great number of years.

A number of reports that we have received from important New Brunswick manufacturers agree in stating that the volume of trade during 1916 was at least equal to, and probably somewhat greater than, that of 1915. Profits during the year seem to have been about the same as they were during previous years although prices were higher. The volume of stocks available to-day is undoubtedly much below that of a year ago. The market for shingles and lath during the year was good. Trade with the United States was better than ever before, and so was the trade with Great Britain, but the high freight rates in the latter cases deprived the manufacturer of the benefits of the trade. In spite of the uncertainty in regard to the immediate future, manufacturers all report that the outlook is good, many of them considering that it is distinctly promising.

Miramichi Trade During 1916

Mr. J. P. Burchill, of George Burchill & Sons, South Nelson, N.B., in a letter to the Canada Lumberman reviewing trade conditions, says:

Shipments from this section during the past season were about normal. A large portion of these were taken by the British and French governments for war purposes. There is a considerable amount of stock wintering, but it is owned by the above-mentioned governments, and they were not able to move it last autumn.

Operations during the present winter, I think, are slightly less than those of last season, with the exception of wood for pulp, large quantities of which are being taken out. The market for manufactured pulp is now in a buoyant condition. The cost of logs will be very much increased this winter, because of the great advance in wages and the higher prices of all kinds of supplies that are required for logging operations. Some operators calculate that the increased cost of logs this season amounted to 25 to 30 per cent. for these causes alone.

The season has been rather unfavorable, and altogether it looks as if the above figures will prove to be fairly close to the mark; consequently the manufacturers here are talking of a considerable advance on last year's prices for deals. At the beginning of January there had not been any movement in the way of purchasing deals for 1917 shipment. This market will depend largely on conditions in Great Britain.

On account of the scarcity of tonnage our usual shipments of lath and other small lumber to the United States markets were much curtailed, but we were relieved by Canadian buyers who almost cleaned up the market of these stocks, and, if cars are available, a large quantity of lath, boards, etc., will be shipped during the present winter.

The chief fire warden for the Province of New Brunswick, in his report for the year 1916, states that the fire hazard was very grave at times, on account of the extremely dry weather, but that their record was one to be proud of. Fires occurred over an area of 2,357 acres, and the total loss amounted only to $8,695. The fire warden strongly recommends the province to introduce a permit system for regulating settlers' fires.

B. C. Firm Catering Specially to Eastern Trade

Eastern Canada buyers of British Columbia lumber products will be interested in the announcement in our advertising columns that the British America Mills & Timber Company, Limited, leading manufacturers and wholesalers, with offices in the Metropolitan Building, Vancouver, have planned to cater very thoroughly to the eastern demand this season. This they are in excellent position to do, having two sawmills of good capacity—one at Mount Lehman, Fraser Valley, the other at Westholme, Vancouver Island. In addition, the firm controls the output of several shingle mills which manufacture the well-known "Shamrock" brand of red cedar shingles. The company's "Timber Price List No. 8," effective Jan. 18th, 1917, should be in the hands of every buyer of lumber, and will be sent on application.

Work of Canadian Forest Products Laboratories

Throughout the year the Forest Products Laboratories of Canada continued their research work in connection with lumber and pulp and paper, under the supervision of Dr. Bates. Considerable attention was given to the investigation of the mechanical strengths of Canadian woods, with a view of comparing the strength of each wood. The United States laboratories at Madison, Wis., are engaged on similar work on American woods, using the same methods, so that a complete record can be made of the woods of the North American continent. The tests of Douglas fir were completed, every part of the tree being tested, and tests also made of black, white and gray spruce and red and white pine. The woods, with the exception of Douglas fir, were supplied through the kindness of the Canadian Lumbermen's Association.

Experiments were made with a view of finding a satisfactory method of creosoting Jack pine and eastern hemlock railway ties. Sufficient work was done to justify the belief that Jack pine can be satisfactorily treated.

Another class of investigation was in the direction of chipping pulpwood in the bush instead of doing the work at the mill. Pulpwood as shipped is practically one-half water, and if the wood can be chipped and dried in the bush a large saving on freight will be effected. Standards were made establishing the relation between a ton of chips and a cord of pulpwood, also the rate of drying shrinkage in the volume of chips.

Dr. Jensen was engaged in analysing Canadian woods, particularly those which are of value, or likely to be so, in connection with pulp and paper. Standard methods of analysis were established, and also analyses made of a number of woods.

A study was made of the methods of creosoting fences for the prairie provinces. The local grown woods are not durable and an endeavor was made to discover a cheap and convenient way in which they could be creosoted on the ground. Tests of treated and untreated fences are being made at Indian Head.

Considerable work was done in the measurements of the fibre lengths of Canadian woods, this being of great value to paper makers, and also necessary to the proper understanding of a great number of the other qualities of the woods. Thousands of measurements are necessary. This work was completed on Douglas fir, and the measurements of spruce and white and red pine are nearly completed.

Progress was made in compiling information on waste sulphite liquor, so that mill managers will be able to secure complete data on this subject. Investigations were also carried out as to the beating of paper pulp, so as to establish the fundamental reactions that occur in the beating of paper. It is believed that this information will be of value to mills making strong papers.

The subject of oils produced by the distillation of soft and hard woods, especially with regard to properties which are useful in ore flotation, was under consideration. Owing to developments in mining, pine oil which was at one time practically without value, is getting scarce, and the object of the experiments was to devise methods of procuring more pine oil or substitutes. This work was done in co-operation with Cobalt mining companies and the Mines Branch at Ottawa.

Several members of the staff were engaged in investigating the production of acetone for use in explosives.

The Forest Products Laboratories desire it to be known that they are prepared to examine all woods and report as to their identity, without cost.

Records Broken by Woodstock Lumber Company

The Woodstock Lumber Company, Boston, Mass., U.S.A., one of the largest importers in the United States handling Canadian lumber, report that their business for 1916 broke all their previous records. For the twelve months ending November 30th, 1916, they shipped to their trade $3,000,000 worth of lumber. Moreover, these figures do not represent their entire sales, as delayed shipments and embargoes have impeded business greatly in all parts of the United States and Canada. The above shipments consist of 29 cargoes and 6,955 carloads of lumber, totalling 110,330,840 feet, divided as follows:—86,234,408 feet of spruce and 24,096,432 feet of miscellaneous lumber, also 36,342,000 lath and 39,343,000 shingles.

The Woodstock Lumber Company are among the oldest lumber firms in New England making a specialty of business in the Canadian markets, and are large users of Canadian spruce and other lumbers. Their dealings with the Canadian trade have given them a high reputation for satisfactory methods. They report that, from the present outlook, their trade during 1917 will even exceed greatly their record of 1916.

Mr. P. D. Gordon, of Mason, Gordon & Co., has been re-elected treasurer of the Montreal Board of Trade, while Mr. Carl Riordon, managing director of the Riordon Pulp and Paper Company, has been elected a member of the council.

Skilled Labor Drained from Lumbering

Nova Scotia Industry Suffering from Patriotism of Its Workers—Other Industries in Similar Plight—A Plea for More Judicious Recruiting

By Elihu Woodworth

A STRANGER visiting any of our smaller towns would find it difficult to realize, from observation alone, that our people are vitally interested in the greatest war that has ever cursed mankind. He would find few outward indications that the great empire to which we are proud to belong is engaged in a terrific struggle for existence, and that our boys are loyally and heroically doing their parts in the titanic contest. He might notice a comparative scarcity of young men, and in some places he might also find men of military age who, apparently, have no personal interest in the war, and who do not allow anything connected with it to interfere with their business or pleasure. To outward appearance he would find conditions much the same as they were when there was no war and when war was regarded by many as a monster that had lost much of its power for evil and was no longer to be feared nor dreaded.

Upon more intimate acquaintance the hypothetical stranger would discover a marked difference. In many homes the would find a vacant chair—in some more than one—and he would see much evidence of anxious watching and waiting for news that may bring sorrow when it comes. In some homes there is mourning for the boys who died gallantly in France or Flanders; in many homes much work is being done for the comfort of the boys at the front, and in all homes a warm interest is manifested in the events and progress of the war.

Of course, there are many places where some of the conditions created by the war are very much in evidence. Even a stranger who should happen to be in the vicinity of a training camp or a munitions factory, or who should see a city with streets thronged with khaki-clad men, would naturally assume that the people were in some way connected with or interested in war. But, apart from such obvious indications, there are conditions which the war has created which are already seriously affecting the welfare of the country. Take, for instance, coal mining. Probably no class of men in this province responded to the call to arms so quickly and so generally as the hardy miners. Of course, the places of those who joined the colors were filled as far as possible, but, in spite of every effort to supply the constantly increasing demand, one result of the enlistments is seen in the fact that the output of coal in Nova Scotia last year was 395,000 tons less than in the preceding year. The falling off in the quantity of coal raised is likely to be much greater this year, notwithstanding the advancing prices, for many miners have enlisted during the past twelve months, and their places will not be easily filled.

The Lumber Production Situation.

Lumbering is another industry which is feeling the effects of recruiting, and is certain to experience still more serious results. In the earlier stages of the war the number of lumbermen who enlisted was small in comparison with the miners and others, but last winter the lumber camps were thoroughly canvassed, and many recruits were obtained. It is stated that the lumber output in Nova Scotia last year was about five hundred million superficial feet, or about the same as the year before. It is probable, however, that a careful verification of the figures would have shown a decided falling off. No other conclusion seems possible, considering the number of lumbermen who enlisted before last year's cut commenced, for it was impossible to get men to fill their places, and a reduced number of workmen must logically produce a reduced output. This has proved correct so far as Parrsboro is concerned, for last year's shipments of sawn lumber from this port were less by nearly six million feet than the shipments of the preceding year. It is true that some ten or twelve millions will be held over this winter, but it is equally true that a large quantity was carried over the year before, and, as the amounts are not usually estimated very carefully, it may be safe to offset one against the other. The important point for the lumber operators to consider is whether it will be possible to replace the large number of their men who have enlisted since last winter. According to present indications, there is little hope that the loss can be made good. The high wages of last season brought out a number of men who had abandoned woodcraft for less strenuous occupations, but it is evident that their number must necessarily be limited and that little additional aid can be expected from them. Some operators claim that this season's output will be from 30 to 40 per cent. below the average. This proposition looks reasonable, for if the usual number of choppers and teamsters cannot be obtained it certainly seems obvious that there must be a reduction in the lumber cut. Some, however, predict that this season's output will be fully as large as usual, but at present it is not easy to discover a basis for such a conclusion. All will be glad if the prediction proves correct, but very few believe it possible.

The revival of wooden shipbuilding, which is so closely connected with lumbering that it may be called an allied industry, has increased and intensified the labor problem. Getting out ship timber is an important operation, and requires practically the same kind of labor that is employed in the lumber woods. Consequently, when a man is engaged in getting out a ship frame, or logs for making planks, there is one less man available for ordinary lumber operations. In the shipyards some skilled workmen are required—men who have learned the shipwright's trade—but there is also plenty of work for lumbermen, sawmill men, or stevedores—in short, for any or all men associated with the lumber business. Shipbuilding has once more become an important industry in this province, but it was handicapped last year by the scarcity of men. When the call for shipwrights came, many men who had worked in the boom shipbuilding times of twenty years ago or more again took up the broad-axe and adze, but the number of young men to be found in the shipyards was very small. More men will be needed this year, for the demand for more vessels is very urgent. In almost every case where shipbuilding has been revived preparations are being made for building more and larger vessels, and the reopening of other yards that have long been idle is under consideration.

The development of shipbuilding last year was remarkable in the circumstances, for in many cases it was practically the same as beginning entirely anew, but nothing except the impossibility of obtaining the required labor will prevent a much greater expansion this season. The urgent demand for new ships is caused by the scarcity of bottoms. For a time our shipowners, instead of building new ships, were anxious to dispose of the ones they had. This was largely because they were unable to compete profitably with the Norwegians, who bought old British ships—many of them condemned—for a mere song, and sailed them more cheaply than any Canadian owner has ever succeeded in handling his vessels. The tramp steamer next took a hand in the game, and our wooden ships became poor property. Many of them were sold for what they would bring. Many others were lost or became unseaworthy, and the combined result was a great reduction in the tonnage of our merchant marine. When the war came the Norwegian and the tramp steamers were not equal to the emergency. Other carriers had to be procured, and this became an immensely difficult matter. Fabulous freight rates were paid, but even then the required bottoms could not be obtained. Large quantities of lumber had to be carried over for want of tonnage, and the shipments from Parrsboro alone last year would have been upward of eight millions less than they were if two British transports had not been sent here for cargoes. Similar conditions prevail in all our ports, and the demand for ships is constantly increasing. Our shipbuilders are doing what they can. In the face of serious obstacles they have built up an important industry, which has done something to relieve the pressing demand for tonnage, and which in many ways has been of great benefit to the country. They are prepared to do still more this year, but their best efforts must result in comparative failure if they are to be hindered and hampered by lack of men.

The Labor Situation.

The labor question, in this province at least, is very closely connected with the subject of recruiting—a subject which at present is attracting a large amount of attention. An effort—one might almost say a desperate effort—is being made to add another hundred thousand to the gallant army of Canadians who have already responded to the call of king and country. Newspapers all over the Dominion are urging the young men to enlist, and are using every argument they can think of to induce all who are eligible to join the colors. One might think from some of the frantic appeals that are made that the fate of the empire depends upon Canada sending her full quota, and it is stated in the most authoritative manner that the only way the war can be won is by sending more men from Canada. No doubt more men are needed, or will be needed, before the war is ended, and Canada will continue to contribute the flower of her manhood, but, unfortunately, the men who are now the most likely to enlist are the ones who can least be spared. More men are needed and will be needed—that much may be considered as settled unless peace comes much sooner than is expected—but there are other things that are even more needed. Men would be useless, or worse than useless, at the front without an adequate supply of food and munitions; consequently, it is absolutely essential to the successful prosecution of the war that the required supply of food and munitions be provided. Miners make excellent soldiers—they have proved it hundreds of times—but those who re-

main at home can serve their country better by raising coal than they can by going overseas to dig trenches. Lumberjacks and shipwrights make first-class fighting men, and they are unequalled for construction corps and forestry battalions, but those who are left are more needed at home than anywhere else. There is work for them here that urgently needs to be done and it is work that cannot be done by women or weaklings. Food and lumber and ships and coal are needed to win the war, but these essentials cannot be provided without men. It would seem, then, that instead of saying that some things are needed more than men, it would be more accurate to say that some classes of men are more needed here than at the front. Some of the apostles of recruiting would laugh at such a proposition. They show no discrimination whatever, and they are so anxious to get the other fellow to enlist that they fail to make even a pretension of consistency. One day they will urge the farmers to increase their products—to cultivate more land, to grow larger crops. This is excellent advice, provided the farmer is in a position to enlarge his operations. But the next day the newspaper counsellor and guide is urging everybody—farmers and all—to enlist, and enlist at once. The farmer who is influenced to enlist by such ridiculous nonsense, and, for the sake of enlisting, leaves his land untilled, thus reducing the supply of food, is doing his country a serious injury for which his valor may never be able to atone.

This is intended as a plea for reason and discrimination, not to put any obstacles in the way of judicious recruiting. The highest authorities—men who should know—declare that more men are needed; that more men must be had to win the war. Canada can spare another hundred thousand, but they must be the right men. Not until it is a question of "the last man and the last dollar"; not until the final sacrifice must be made to save the empire, can Canada spare more farmers, more lumbermen, more shipwrights, more miners, more sailors. We need all we have of these and more. The work they are doing is essential to the welfare of the Dominion and of the Empire. The number of munition workers must be increased rather than diminished. It will, no doubt, be a part of the duty of the National Service directors to see that the men whose labor is imperatively needed in the country are not allowed to leave. It will also be their duty to obtain the required number of recruits of the kind the country can spare. This is no easy problem, and may require drastic measures before it is accomplished, but anything is better than draining the country of the men who are doing the work.

Trade Conditions in Nova Scotia

By Hon. R. M. MacGregor

It is apparent that the cut of lumber in Nova Scotia for the current season will fall much below the average. This is due to the general war situation, and its effect upon markets and ocean freights. The Imperial Government and the French Government were large buyers of spruce and hemlock last year, and are again in the market this season. The bulk of the deals that would naturally go to Great Britain will be sold this year to agents of the two governments. The extent of the demand will depend upon the possibilities of finding tonnage to carry the stock. The embargo that existed for a large part of last year on the importation of hardwood into Great Britain, and the small demand for hardwood at the present time, will result in very little hardwood being cut this season. Many operators, however, have a considerable quantity of last year's cut of hardwood still on hand.

In the southern and western portions of the province, which cater to the southern and American trade, the effects of the war will not be felt to the same extent, except in regard to the scarcity of tonnage.

Apart altogether from market conditions, the increased cost of all supplies and the higher wages demanded by woodsmen are tending, all over the province, to reduce the output. In the central and eastern portions of Nova Scotia, the shortage of labor is very marked.

The high price of pulpwood is encouraging a number of new operations in that line. It is understood that the American interests holding large leases of lands in Victoria and Inverness Counties intend to resume operations at North River on an extensive scale.

In general, however, there is a feeling of uncertainty among the trade and a tendency to restrict operations.

Wooden Block Paving Rapidly Increasing

Reports compiled from all sources by the various lumber associations indicate that the year 1916 marked the completion of a total of 25,000,000 square yards of wooden block pavement in the United States. The use of the wooden block has grown immensely in the last few years, especially in view of the discovery that it is more clinging to the automobile wheel than most other forms of pavement. In the Middle West, although its cost is greater—a slight degree in some places, 50 per cent. higher cost in other localities farther from the forest—the wooden block is being put in in preference to the other forms of pavement. The best estimate of the amount of block laid in 1916 is that street paving during the year aggregated about 2,500,000 square yards. The cities where 100,000 square yards or over were laid during the year just closed were New Haven, Conn.; Detroit, Mich.; Minneapolis, Minn.; St. Paul, Minn., and Kansas City, Mo. Indications are, in addition to this public work, that about 1,000,000 square yards of block were laid in factories during the year. Among the biggest of these contracts were 30,000 yards for the General Electric Company, at Fort Wayne, Ind., and 32,000 for the Saxon Motor Company, at Detroit.

Logger in Daring Feat

A few weeks ago the crew of Higgings' logging camp at Camelon Harbor, Tribune Channel, about eighty miles north of Vancouver, witnessed an act of remarkable daring and agility, performed by one of their number, which will doubtless be talked about for many a day in the Coast lumber camps, where feats of daredevil bravery are as common as "scraps" among school boys.

In the course of a shift to a new logging location it became necessary to attach a cable to a very tall tree at a point 120 feet from the ground. Usually this is done by a workman equipped with pole-climbing spurs and belt, but this time these means were not available. What was to be done? It would take several days to secure the equipment from Vancouver, and a shutdown of the operations for that length of time was not to be thought of owing to the heavy expense involved.

This is where tall Andrew Busby came to the rescue, if reports are true. He was an expert chopper and skilled in using a springboard. With his axe and two springboards he began to climb the tree. Standing on the first board, he chopped a notch five feet above him, slipped the second board into the notch, climbed up, and, drawing the first board after him, repeated the performance a score of times. In an hour, while his companions below watched him breathlessly, he reached the top of the tree and affixed the rope. Standing on a board a few inches wide, he was apparently as cool at 100 feet from the ground as when he was only five feet from terra firma.

Busby is now a private in the 230th Forestry Battalion, having enlisted in Vancouver a few days after performing the act above recorded.

Timber imports Into Australia

According to a report issued by the Department of Trade and Commerce, Ottawa, the Canadian Trade Commissioner at Melbourne, Australia, states that the imports of lumber into the State of Victoria during the last three years have been as follows:—

Timber	1914 Super. feet	1915 Super. feet	1916 Super. feet
Total importations	160,609,000	86,170,000	87,886,000
Total consumption	151,854,000	102,571,000	93,177,000
Total stocks held	76,913,000	60,512,000	55,221,000

The fluctuations in the quantities of each classification of timber imported into Melbourne during the fiscal years ended 1914, 1915 and 1916 were as follows:—

Class	1914 Super. feet	1915 Super. feet	1916 Super. feet
Red deals	4,778,000	909,000	2,320,000
Dressed flooring and lining	51,453,000	35,743,000	19,235,000
Spruce and hemlock	5,235,000	3,272,000	711,000
Oregon (Douglas fir)	50,406,000	17,973,000	22,378,000
Sugar and yellow pine	3,669,000	1,433,000	1,389,000
Redwood	13,727,000	10,478,000	11,773,000
Dressed American shelving	25,000	74,000	33,000
New Zealand kauri	4,096,000	3,275,000	4,255,000
New Zealand white pine and rimu	13,947,000	12,400,000	23,697,000
Clear pine	73,000	23,000	61,000
Pacific pine (Siberian)	13,200,000	590,000	2,034,000
Laths No.	30,796,000	10,630,000	11,630,000
Pickets No.	1,346,000	658,000	752,000

A tabulated statement of the stocks of timber held at Melbourne at the close of the fiscal year, from 1914 to 1916, inclusive, is as follows:

Class	1914 Super. feet	1915 Super. feet	1916 Super. feet
Red deals	3,583,000	1,863,000	2,786,000
Dressed floorings, linings, etc.	18,454,000	23,575,000	18,350,000
Spruce and hemlock	4,691,000	2,996,000	996,000
Oregon (Douglas fir)	21,464,000	9,688,000	6,650,000
Sugar and yellow pine	4,362,000	2,815,000	2,308,000
Redwood	6,169,000	4,420,000	7,226,000
Dressed American shelving	96,000	62,000	47,000
New Zealand kauri	5,009,000	5,249,000	5,521,000
New Zealand white pine and rimu	10,201,000	9,503,000	11,044,000
Clear pine	95,000	46,000	48,000
Pacific pine (Siberian)	2,780,000	295,000	245,000

While the stocks held in Melbourne on June 30 last were not far short of the usual average, yet the sources of supplies were materially altered. The inability to arrange charters from the Pacific Coast gave New Zealand timber mills an exceptional opportunity, of which full advantage was taken, to increase their exports to Australia, particularly in white pine and rimu.

With abnormal costs of all building materials, dearer money and increased taxation, speculative building has ceased in Australia.

British Columbia Trade During 1917

By Frank Foster

The general opinion of those connected, either immediately or remotely, with the lumber trade in British Columbia may be expressed in terms of a comfortable optimism. Part of this is, no doubt, based upon prospects for the coming year; but, apart from this, the actual volume of orders on hand with the mills and on the books of the established wholesalers is extraordinary for the time of year, and prices have responded to this demand, being about five dollars per thousand higher all round than a year ago. The abnormal advance in the price of shingles of the grade and dimensions used in the United States market is due, of course, largely to the difficulty in obtaining car service for delivery across the border. Bolts have naturally followed the upward movement of shingles, and compelled the shingle manufacturers to maintain the high prices in self-defence.

It must not be supposed that the millman has no drawbacks to show against his abundant orders and better prices. His life during the past twelve months has not been a bed of roses, or, to put it more forcibly, if less poetically, "all beer and skittles." The cost of machinery has increased enormously, even, in some cases, by 100 per cent. Supplies have sympathized with the cost of living, and labor has, perhaps naturally, not sympathized with the woes of the "boss." Everything else being up, wages must follow. The margin between the cost of production and the actual selling price per thousand is probably not very different from what it was a year ago. The five dollars or so excess in price belongs to the millman, just so long as it is in transit. The solid benefit he achieves from present conditions comes about by the plentiful supply of orders. He is not condemned to carry a large stock, and he can choose such bills as suit his class of logs. If the demand is what it promises to be, and car service at least gets no worse, he will face the new year cheerfully and confidently, for he is a chronic optimist, or he would never be in the business at all.

Trade all round owes much to the sawmill operator. It has been pointed out that milling is a losing game most years. And it is a harassing game every year. Even when a spell of good times does appear everyone seems to "get a whack" at mill profits before the boss comes in for what is left. Mill plants cannot be diverted into other industries as some manufactories can. We do not hear of sawmills taking contracts for munitions, nor do we find other industries carrying the burden of ten or fifteen years' supply of raw material, as the mill owner often feels compelled to do, in the form of standing timber. Indeed, he is a heroic and somewhat pathetic figure in the vast hurly-burly of twentieth century business life.

There is, of course, much talk and much speculation that does not unpack its heart in words concerning the export trade from this coast. But the entire export situation, except in a few instances governed by quite exceptional circumstances, is spelled in one word—"freights."

A report from Vancouver, B. C., states that orders for shingles are commencing to appear in fair volume and that a heavy demand is expected in February, when all the mills will probably be in operation again.

The present estimated cost of cutting pulp wood is from 30 to 50 per cent. higher than last year.

British Columbia 1916 Log Output

The cut of timber in British Columbia during 1916, with comparisons for 1915, as shown by the official scale of the Forest Branch of the Department of Lands, amounted to 1,280,263,000 feet b.m., against 1,017,683,000 during 1915. The largest output was in Douglas fir, the total being 564,691,000 feet b.m., against 426,232,000 feet b.m. in 1915. Details of the scale are as follows:—

Prices of West Coast Shingles

An interesting summary of the average net wholesale prices of shingles during 1916, and comparisons with previous years, has been published by the West Coast Lumbermen's Association in connection with Extra Star-A-Star and Extra Clear grades. The report is based upon the regular market reports of the association. It shows that the total volume of sales during 1916 slightly exceeded 2,000,000,000 shingles. It is also interesting to note that the average for Stars during December, 1916, was the highest that it has been for any December since 1906, while the yearly average for Stars is the highest since 1913, when it was $1.65. The yearly average for Clears is also the highest since 1913, when $2.14 was the average. The summary of prices is as follows:

	Extra Stars, 1916.	Extra Clears, 1916.
January	$1.38	$1.77
February	1.50	1.87
March	1.52	1.91
April	1.52	1.93
May	1.51	1.91
June	1.48	1.90
July	1.44	1.85
August	1.48	1.85
September	1.48	1.80
October	1.59	2.00
November	1.84	2.17
December	1.90	2.03
Yearly average	$1.55	$1.92

B. C. Exports of Sawlogs to the United States

British Columbia's exports of saw logs to the United States during 1916 and 1915 were as follows:—

	1916 Feet B.M.	1915 Feet B.M.
Cedar	45,943,646	72,417,056
Fir	7,183,855	8,929,125
Spruce	1,290,152	9,442,085
Pine	.....	257,902
Balsam	.....	900,768
Hemlock	155,436	9,809,941
Hemlock and Balsam	.....	5,118,058
Shingle Bolts (Cords)	912	
Total	54,573,089	106,874,935

And 912 cords.

Pacific Coast Water-Borne Shipments

Pacific Coast water-borne shipments of lumber, etc., during 1916, as reported by the Pacific Lumber Inspection Bureau, were as follows:

SUMMARY, 1916	Domestic	Foreign	Total
British Columbia	3,564,654	40,111,869	43,676,523
Puget Sound	309,405,145	160,631,642	470,036,787
Grays Harbor	242,030,179	40,815,507	282,845,686
Willapa Harbor	82,716,267	12,754,714	95,470,981
Columbia River	258,920,753	67,848,709	326,769,462
Coos Bay and Oregon Coast	225,421,971	.....	225,421,971
Total	1,122,058,969	322,162,441	1,444,221,410

Shipments during 1916 and 1915 showed the following comparisons:—

	1915	1916		
British Columbia	69,411,235	43,676,523	25,734,712	Loss
Washington	816,182,138	848,353,454	32,171,316	Gain
Oregon	525,044,028	552,191,433	27,147,405	Gain
Totals	1,410,637,401	1,444,221,410		

Species Cut, 1916, M.B.M.

	Douglas Fir	Red Cedar	Yellow Cedar	Spruce	Hemlock	Balsam Fir	Western Soft Pine	White Pine	Jack Pine	Larch	Cotton-wood	Birch	Maple	Total
Cranbrook	50,678	10,616	.....	10,193	.....	657	39,079	879	1,979	28,807	51	.....	.....	142,939
Fort George	2,724	10	.....	2,654	.....	77	.....	.....	187	.....	211	10	.....	5,873
Hazelton	.....	949	.....	592	281	3	.....	.....	.....	.....	33	.....	.....	1,858
Kamloops	11,700	8,999	.....	939	.....	.....	2,683	.....	226	.....	.....	.....	.....	24,547
Lillooet	1,137	.....	.....	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	1,149
Nelson	9,887	24,064	.....	1,227	4,640	6	4,641	3,423	20	9,606	165	1	.....	56,680
Vernon	7,172	398	.....	111	.....	.....	26,368	165	.....	293	659	.....	.....	35,166
Prince Rupert	3,035	4,453	54	16,754	4,701	4,007	.....	.....	676	.....	1	.....	.....	33,681
Island	108,075	12,224	.....	17,867	7,115	627	.....	43	.....	.....	.....	.....	1	145,952
Vancouver	370,283	323,383	21	34,992	84,578	16,029	.....	2,306	.....	.....	824	.....	2	832,418
Totals	564,691	385,096	75	85,329	101,315	21,406	71,783	6,816	3,088	38,706	1,944	11	3	1,280,263
Totals, 1915	426,232	354,702	30	74,676	79,392	1,260	29,766	5,057	6,914	38,597	1,045	(Alder) 13	.....	1,017,683

B. C. Mountain Statistics for 1916

Satisfactory Increase in Output Over 1915—Stocks on Hand Sixty Million Feet Less Than a Year Ago

The cut of lumber in the Mountain district of British Columbia in 1916 was 265,000,000 feet, according to complete figures which were presented at the annual meeting of the Mountain Lumber Manufacturers' Association. The increase over 1915 is 71 per cent. Shipments were 330,000,000 feet, an increase of 26 per cent. over 1915. Stocks are below normal. Imports of American lumber into the prairie provinces during the year were 9,500,000 feet, 18½ per cent. increase over the imports for 1915, but very much less than in 1912, when the imports were 140,000,000 feet. Stocks on hand are approximately 80,000,000 feet, against 140,000,000 feet on Jan. 1, 1915.

The cut and shipments for the past five years shown in millions of feet, were as follows:

	1912	1913	1914	1915	1916
Cut	420	386	233	155	265
Shipments	488	335	210	262	330

It will be noted that the cut was the heaviest since 1913, and that shipments were within 5,000,000 feet of those of 1913.

The secretary's report stated that the year 1916 had opened with prospects of a continued improvement in the lumber trade. About the only cloud on the horizon was the danger of over-production. However, conditions over which the lumbermen had not control had forced a curtailment of production, and at no time during the past year did stocks exceed those on hand on January 1, 1916. Adverse weather conditions in June and July and a shortage of labor during the latter part of the year prevented any large accumulation of stocks. Improved business conditions had prevailed throughout Western Canada during the year, and the demand for lumber had been unusually brisk during July, in view of the prospects for an excellent harvest in the three provinces. Unfavorable weather conditions had damaged the crop in some sections, nevertheless the disposal of the 1915 bumper crop, at constantly advancing prices, had tended to maintain an active demand for building material. Mixed farming was increasing in the western provinces, and bringing with it a greater demand for lumber. Curtailment of production during the year had greatly assisted in maintaining stable prices for the product and in establishing a permanent market, as it had tended to equalize supply and demand.

High Cost of Labor and Supplies

Prices during the past year had been firm. Following January 1 several increases had been made, but on the whole, these had not been enough to cover the increased cost of production. The increased prices during 1916 were but 3½ per cent. above the quotations obtaining in 1912, which was not by any means a profitable year for the Mountain lumber industry. This was a very small increase when compared with the increased cost of labor and supplies used in logging and in the mills. Increases in the cost of mill and camp supplies amounted to from 20 to 100 per cent., and in the cost of labor from 10 to 25 per cent. The average increase in the cost of production since 1914 had been fully 33 per cent.

Feeling that the cost of production would further increase during 1917, the manufacturers decided that it was necessary to increase prices. A rise of 50 cents on commons and $1 on uppers was decided upon.

During the summer and early fall months the shortage of labor had been very acute. Large numbers of men had enlisted and others had gone to the prairies for the harvest. As a result, many of the mills were obliged to close down or curtail operations, and it was not until late in November that any improvement in the situation occurred. At present the lumbermen had sufficient men, but they anticipated a further shortage early in the year. They look for no permanent improvement in the labor situation or in the cost of supplies until after the war, when man power is again directed to civilian pursuits.

The lumbermen went on record as continuing to favor the policy of keeping lumber prices as low as possible. Speakers at the meeting agreed that it would be bad business to allow lumber quotations to get sufficiently high to bring about a decrease in demand in favor of substitutes. It was important to keep prices within the reach of the farmers, and this policy would tend to permanency of market and stability of price. For this reason they favored endeavoring still to stand the difference between the increased cost of production and the small increase in price. Warnings against overproduction were voiced. Prospects for 1917 were declared to depend upon conditions, such as the prairie crops, the labor situation, and cost of supplies.

A resolution expressing the opinion that the advertising and market extension work of the British Columbia Forest Branch had produced good results in educating the consumers to the advantages of using British Columbia lumber was passed.

As the new Workmen's Compensation Act in this province came into effect January 1, the Association decided to wind up its mutual casualty insurance fund. This had been operated for ten years, during which $150,000 had been paid out on claims to injured workmen or their dependents. It was agreed that the mutual system had worked with satisfaction to the employers and to the workers, who had received payments much more quickly than they would from insurance companies. Lumbermen do not know what insurance will cost them under the new act. As the scale of payments to employees is greater than under the old acts, they expect assessments to be heavier—possibly three times as much.

President and Vice-President Re-elected

The election of officers resulted as follows:—

President—C. D. McNabb, Waldo, for the third term.

Vice-President—W. F. Lammers, Chase, for the second term.

Executive—H. H. Ross, Waldo; C. O. Staples, Wycliffe; G. Fred Robinson, Nelson, and L. D. Rodgers, Bolden.

Mr. I. R. Poole, secretary of the Mountain Lumber Manufacturers' Association, in a letter to the Canada Lumberman, takes issue with the figures published in our issue of January 15th, in an interview with Mr. Hugh A. Rose, who on his return from a visit to British Columbia, stated that mountain stocks on hand showed a decrease of from 90,000,000 to 100,000,000 feet, as compared with a year ago. Mr. Poole states that the decrease at the first of the year was only 60,000,000. Referring to the labor situation, Mr. Poole, in his letter says:—"The labor supply in the Mountain District since about the first of last December has been fairly satisfactory, although wages have been high and labor inefficient compared to that available a few years ago. All mills which were active last year, and in addition several others, are busy getting out logs for this year's cut, and indications at present are that the lumber cut of 1917 will be considerably greater than that of the past year. It is, of course, impossible to estimate the output for this year as it will depend to a large extent on the condition of the labor market.

The principal reason why stocks are much lower than normal is the fact that a large number of mills, both in the Mountains and at the Coast, were forced to close down as they could no longer continue to sell their product at less than the cost of production. The mills of British Columbia are capable of producing many times the requirements of the prairie market, and all that they require is some assurance that they can dispose of their product at a reasonable profit."

Mountain Mills Enjoyed Firm Prices

Mr. I. R. Poole, secretary of the Mountain Lumber Manufacturers' Association, Nelson, B.C., in a review of trade conditions during 1916, says:

The year opened with prospects of continued improvement in the lumber trade, and about the only drawback anticipated was that of overproduction. However, conditions over which the lumber manufacturers had not control assisted greatly in regulating production, and at no time during the past season did stocks exceed those on hand at the first of the year. The exceedingly high water in May and June forced a number of mills to suspend operations for a time, and later on in July and during the fall months the shortage of labor was very acute, practically all mills being forced to curtail on this account.

Improved business conditions and the disposal of a large portion of the bumper crop of 1915 during 1916 at constantly advancing prices resulted in a fair demand during the whole year. The demand was unusually brisk during July and August, in view of the prospects of a good harvest, but unfavorable weather conditions affected crops considerably in a number of districts, and had the effect of restricting business in the affected territory.

Curtailment of production equalized supply and demand, and prices were exceedingly firm during the year, and advances were made from time to time as conditions warranted. Although lumber prices are much higher than they were a year ago, they have not increased in proportion to the advance in price of other commodities, or to the increased cost of production, the increase in the net selling price compared with 1912 being only about 3½ per cent.

William Henry Thomas, a partner in the firm of Munro, Brice & Co., wood brokers, Liverpool and London, England, died recently, after a brief illness, from pneumonia. The late Mr. Thomas had been connected with the English timber trade for a great many years, first with Duncan Ewing & Co., wood brokers, and subsequently with Munro, Brice & Co.

Mr. Roy Campbell has resigned the secretaryship of the Canadian Pulp and Paper Association, having accepted a position with the Riordon Pulp and Paper Company. He is succeeded by Mr. A. L. Dawe. The association will rent offices of their own, and propose to broaden the scope of their work, particularly in the way of statistical information on the raw material market and also of the finished product.

Looking Ahead into B.C.'s Future

By E. H. Newton

As we enter upon the year 1917 we are at once brought face to face with conditions and eventualities such as we have never been called upon to face before; and, as we cautiously and peeringly search the evidences before us which might be expected to give us some tangible clue as to what we may expect to find further on down the lumber road leading through the next twelve months, it is pleasing beyond description to note that we find the trail illuminated all the way by a high-voltage, "nitro-filled" brand of optimism. It is a glorious thing to see such a brilliant display of courage as is being shown by lumbermen at the beginning of the present year. As we look away on down this trail we are not forgetful of the gloom which has spread over the face of the earth, but we know that real zeal has pushed aside many a dark cloud in the past which had filled the more timorous hearts with fear, and we feel sure that such courage and determination as is being manifested in this province to-day—and in the whole Dominion, for that matter—will surmount or sweep away what may at times look like a preponderance of difficulties.

In the Province of British Columbia lumbermen are entering the new year ready for action; and if the chips do not fly when we begin, then I have read the evidence before me incorrectly. With the quickened pace and the renewed hopes with which each man is presenting himself being noticeable everywhere, there can also be seen a more united strength of determination on the part of each individual lumbermen, as well as on the part of the whole body politic, that, let what will come or go, the lumber business has got to go ahead, and at a lively pace, too.

We are fully convinced that if there were any engaged in the lumber business for the good of their health at any time in the past, they have now caught the germ which is in the air, and have resolved to put forth all their energies in a united effort to bring the business out of and above the shadows of doubt which have so beclouded it at times as to cause capital to look the other way as it passed along in its search for profitable investments; and in this way, in this year, a problem which has been giving us a nightmare for years can be solved.

Lumber production, as we all know, is one of our chief industries in this province, and it surely rests with those engaged there—indeed, is incumbent upon us—to grasp the situation which presents such a favorable opportunity to conduct the business in a manner to make it reasonably profitable, not only as a revenue-producer for the province, which benefits the people as a whole, but for ourselves individually, collectively, or otherwise, so that everyone engaged in the business may get the greatest benefits from it. At the same time the interests of the consumer must not be lost sight of, for I maintain that the man who cannot see and safeguard the interests of his customer—the consumer—cannot see and study his own interests to the best advantage.

Another of British Columbia's industries has paid millions of dollars in dividends for the year just passed. We do not ask nor expect lumber to eclipse these figures, but we do know that it is results such as these that make capital sit up and take notice. We cannot get away from the weight of responsibility which rests upon those of us who are engaged in this business. If we transgress any of the laws of good business procedure during the present year, which as it opens up before us discloses so many bright and encouraging features, we are guilty, to my mind, of an inexcusable misdemeanor. The absolute interdependence of those engaged in the lumber business, one upon another's acts, is such as to set aside any or all possibility of individual independence or neutrality which may ever have existed. If we think that we can take any individual action in a divergent course to the general trend of things, without injury to the cause in which we are engaged, we are deceiving ourselves. Woodrow Wilson is about the only neutral force in the world to-day. In most things that which does not lift up or go forward pulls down or goes backward. President Wilson does neither, but there are no such people as the President engaged in the lumber business.

Problems and perplexities are staged for the present season, some of which will cause to pale into insignificance anything which we have had cast upon the screen before, and he who goes into the new year with his eyes closed to these probabilities, glimpses of which can be seen every day, goes in to meet many surprises. Some of the supplies used in the production of finished lumber have doubled in price, some have trebled, and yet others have quadrupled. This in itself is bad enough, but a worse feature still is the difficulty of obtaining some of the most essential things at any price. In discussing the question of a certain grade of wire cable with a wholesaler to-day he said: "If I knew where you could get it I would tell you, but I do not know. I would advise you that if you can locate any you will make no mistake in buying, even at present prices, for future needs, but in any event do not depend upon us, for we cannot get it." What applies to wire cable applies to all steel products, belting, babbit metal, and one hundred and one other things. Then comes the question of labor. Here is where bitter disappointment will present itself, before the season is out, directly in the course or pathway of immoderate optimism; and, whether this will work out as a factor for good or evil depends to a very large extent upon whether the proper exercise of well-balanced judgment is brought into action or not.

It is the general consensus of opinion amongst lumbermen, as this letter has already indicated, that very heavy demands will be made upon the British Columbia mills before the season is out. Shipbuilding, which has already reached considerable proportions, though it is said to be still in its infancy, is making large demands, and the prospect on the whole looks mighty good. Let us hope that the turning of these prospects into probabilities, and from probabilities into actualities, will at least bring us into a realization equal to that of our anticipation.

Good Markets in Eastern States for B. C. Products

Many Canadian shippers of lumber to the Eastern States are taking advantage of the new canal rates, or are planning to do so, by shipping at a low cost out of Quebec to firms located in New England and New York States, either by rail or batteaux to Levis and there transferring to canal boats for shipment by way of Lake Champlain and on to Albany and other points east and west. The Blanchard Lumber Company, Boston, Mass., are in a good position to handle Canadian stocks of this class. They have their own manufacturing plant in Maine and are therefore well acquainted with market conditions in the Eastern States and able to give satisfactory attention to Canadian shippers. They are arranging to increase their connections in this line and report that many Canadian firms are increasing their interest in the United States market, finding a better opportunity there to obtain good prices and benefit by the lower cost of shipment, as well as the shorter time in making delivery. An extra inducement pointed out by the Blanchard Lumber Company in connection with this line of trade is the fact that Canadian producers may obtain good prices for their stock, f.o.b. their mills, while in many cases trans-Atlantic shipments are quoted f.o.b. port of export.

The markets in the Eastern States for British Columbia red cedar shingles and other products of the mills of British Columbia are increasing and improving steadily. The Blanchard Lumber Company report that these products are very popular and that dealers in the east cannot get enough of them to meet the requirements of the trade. They invite Canadian manufacturers and shippers to investigate the eastern market, particularly that for red cedar, and will be pleased to get into communication with any who are interested.

Liverpool and Manchester Stocks

The following report upon Liverpool and Manchester stocks for the month ending December 31, 1916, is furnished by H. W. Lightburne & Co., Liverpool, Eng., and their St. John, N.B., representative, John E. Moore & Co., Ltd.:

Spruce and Birch.

Liverpool.

	Import.			Consumption.			Stock.		
	1914.	1915.	1916.	1914.	1915.	1916.	1914.	1915.	1916.
N.B. and N.S. spruce and pine, stds.	3,120	1,900	2,120	4,940	1430	1,470	4,520	14,150	11,740
Birch logs, loads	0	60	0	100	80	40	140	900	960
Birch planks, stds.	418	230	48	152	73	358	873	1,073	570
Manchester.									
Spruce, stds.	760	3,300	2,420	4,340	1,560	2,400	7,430	17,170	17,590
Birch logs, loads.	0	0	0	100	60	80	640	1,120	860
Birch planks, stds.	18	49	109	127	91	42	630	728	624

Stocks in Manchester and Liverpool Combined.

Spruce.

	1912.	1913.	1914.	1915.	1916.	
Manchester	7,620	17,840	7,430	17,170	17,590	
Liverpool	3,750	7,730	4,520	14,150	11,740	
	11,370	25,570	11,950	31,320	29,330	stds.
Birch Logs.						
Manchester ...	460	340	640	1,120	860	
Liverpool	860	300	140	900	960	
	1,320	640	780	2,020	1,820	loads
Birch Planks.						
Manchester ...	540	570	630	728	624	
Liverpool	673	897	873	1,073	570	
	1,213	1,467	1,503	1,801	1,194	stds.

The Atkins Pioneers—men who have been associated with E. C. Atkins & Co. for twenty years or more—celebrated the eleventh anniversary of their organization by a banquet, followed by a theatre party, at Indianapolis, on February 10. The Pioneers were organized in 1906, with 62 members, and the present membership is 121.

Messrs. Muir and Kirkpatrick, Traders Bank Building, Toronto, announce that they have taken over the interest of Mr. E. P. Sharpe, formerly a member of the firm of Muir, Kirkpatrick & Sharpe, and that the business will be continued under the name of Muir & Kirkpatrick.

Forest Conservation Conference

A two days' conference for the discussion of forest conservation questions, called by the St. Maurice Forest Protective Association, Limited, and the Lower Ottawa Forest Protective Association, was held on February 1 and 2 at Montreal. Many branches of the subject were discussed, and there was a good attendance, including the most prominent representatives of government, lumbering, forestry, and pulp and paper interests in Canada and the United States. During the first day the discussion was entirely upon the subject of the protection of forests against fire.

Mr. Ellwood Wilson, president of the St. Maurice Association, was in the chair, and in welcoming the delegates referred to the success which had attended the efforts of co-operative fire protection. That success in the Province of Quebec had been due largely to the assistance received from the Hon. Jules Allard. The bill introduced by him amending the Forest Laws Act had proved of great value; the penalties had been increased, but had been found necessary in only one instance, the prosecutions having fallen from 57 four years ago to 1 last year. The St. Maurice Association only resorted to prosecution in the last resort; they believed in educating the settlers. The association had tried to work in harmony with the settlers and had been fairly successful. It was possible that many of the settlers would join the association, which would be one of the finest developments possible.

Mr. Clyde Leavitt, chief fire inspector of the Board of Railway Commissioners, remarked that formerly the railway companies were charged with causing many forest fires, but really none knew the exact causes of the fires, owing to the fact that the fire protection organizations did not cover the entire lands and there were no statistics available. There was still much to be done in the way of securing data. During the last five years the railways were generally accepted as being the minor instead of the major cause of fires. Mr. Leavitt outlined the steps taken by the Railway Commission to protect the forests, stating that out of over 37,000 miles of railway lines about 82 per cent. was under the jurisdiction of the commissioners. Railway fire protection in this country was in advance of anything of its kind on the continent. The co-operation between the railway companies and the fire inspectors was very satisfactory. The effectiveness of this protection had been seriously handicapped by the unsatisfactory conditions immediately adjacent to the right of way, and the governments ought to deal with the menace from the inflammable material on the lands so situated. In Quebec a beginning had ben made, and in Algonquin Park, Ont., the Grand Trunk had made an improvement. In 1916 558 fines originated with 300 feet of the right of way of railways under the commissioners' jurisdiction, a decrease of 128. Of these 69 per cent. were due to railway causes, the damage totalling $35,000.

Fire Protection Problems.

Mr. B. M. Winegar, forester for the Eastern lines of the C.P.R., in giving details of the fire protection system on that line, said it was difficult to state what forest products meant to the company from a traffic standpoint. From Parry Sound to the Soo, from Sudbury to Winnipeg, they were to-day handling about 1 per cent. of the timber business they should. That country was strictly forest site, agriculture would play little, if any, part in its future development. The company were getting no timber crops from there; fire did the work long before there was any demand for that lumber and pulp The fires from railway origin were relatively unimportant when the whole burned area was taken into consideration. To-day the timber was practically cleaned off the Transcontinental from Hearst to Winnipeg. This was not burned by construction or operations of that railway. Proper protection in the past would have meant many thriving villages in Western Ontario to-day. When it was realized that the approximate annual demands of the C.P.R. totalled five and one-half million dollars for forest products it became apparent they were in favor of real conservation. The company bought five million ties and used them for piles, poles, shims, tie plugs, and lumber, a total of about ninety million feet. Up till now 60 per cent. of the tie supply came from the district between Sudbury and Kenora. That country would have provided them with material indefinitely if the fires had been kept out. Timber holdings were growing less accessible each year, and the expense of logging and driving increased. Mr. Winegar suggested the following: A slash law the same as that of Maine. All slash and debris within 50 feet of a right of way, or of a road, to be cleaned, or a belt of green timber 50 feet wide allowed to grow; also that if the location of the rangers were posted in all stations and other public places help would be called much more quickly than now, in case of fire.

Mr. A. H. Graham, chief fire inspector of the Lower Ottawa Forest Protective Association, gave particulars of the operations of that association during three seasons. The patrol staff consisted of 57 rangers and 4 chief rangers. Experience had proved conclusively that the co-operative system of fire-fighting was the strongest and most efficient when the drought period came and men had to be gathered and hurried to fires with equipment. During three seasons' operations 457 fires had been extinguished, 560 miles of trail cleared, and the mileage travelled by rangers was 311,868 miles. About 300 miles of telephone lines had been constructed, five large towers erected, three of which were equipped with local and long distance telephone connections. During the first two seasons settlers were accountable for 50 per cent. of all the fires, but this had been reduced to less than 15 per cent. The opposition to the permit system had almost vanished. They had more success in controlling fires and confining them within a certain area than in completely extinguishing them. In 1914 the number of fires extinguished was 154; in 1915, 155; and in 1916, 148. The total area burned over, including private lands, was: 1914, 297,996 acres; 1915, 20,715 acres; and 1916, 8,637. The merchantable timber scorched was: 1914, 16,624,325 b.m. feet; 1915; 6,607,450 feet; and 1916, 858,620 feet. The cost of operation for patrol, including all accounts except for fire fighting, had not exceeded $1.50 per square mile, or less than ¼c per acre. No fires had come to their territory from the St. Maurice territory, which adjoined, but this could not be said regarding the Upper Ottawa area (which included licensed crown lands to the extent of 16,000 square miles), where fire ranging was done by the private system of patrol. A number of the companies were doing a great deal to prevent fires, and were spending two or three times more money patrolling and fire fighting than they should have to spend because of their neighbors' carelessness and lack of proper patrol of their limits by competent rangers. Mr. Graham's remarks were backed up by a licensee who owned extensive areas in the Upper Ottawa district. Thirty-five million feet of merchantable timber scorched was the estimate of damage done by two fires that reached his limits in an uncontrollable state, notwithstanding the fact that he spent $3.80 per square mile patrolling, and an additional $2 per square mile was spent for fire fighting.

The chairman was emphatic in his view that owners of licensed lands should be compelled either to form an association or join associations already in existence. Men who tried to control their own fires were not successful, and were a danger to their neighbors.

Mr. E. T. Allan, forester to the Western Forestry and Conservation Association, spoke at length on the work of the association. He alluded to the importance of working in harmony with the state. The association had made arrangements for an international weather bureau service and also did a large amount of publicity, both by way of the exhibition of slides and through the schools. The association had been consulted on various questions affecting lumbermen. Mr. Allen outlined methods to obtain the co-operation of timber owners in the patrol associations.

Mr. J. Black stated that he represented Mr. J. R. Booth, a victim of individual effort to control fires. Mr. Booth lost thirty-five million feet from fires which did not start on his own limits, which were well patrolled. Two years ago he (Mr. Black) tried to form a co-operative association for the Upper Ottawa, but found the limit owners very apathetic. He had now decided, with Mr. McLaughlin's assistance, to make another attempt, and will call a meeting in the middle of this month for that purpose.

Quebec's Protection Situation.

At the opening of the second day's proceedings Mr. W. C. J. Hall, superintendent of the forest protection branch, Quebec, gave some details of the operations of the government. There was, he said, a large strip of land, consisting of many million acres, over which the department had a certain amount of influence. In the rear of that was 70,000 square miles of crown lands, on which they concentrated their efforts, while in the rear of that area again were 100,000 square miles of territory which was difficult to deal with. Of the 70,000 square miles there were 25,000 under the co-operative system. They had now obtained the united assistance of the government, limit holders, and the public. Forty-five thousand square miles were under the indidual system, and this included some notable examples of efficiency—Mr. J. R. Booth, who looked after his limits as well as any association; the River Ouelle Pulp and Lumber Company, and the James Fenderson Company. There were, however, some slackers. During the fiscal year 21,000 acres were affected by fires; since then there had been some large fires, but not so extensive as had been reported. There was only one railway line which was not under the control of the department. A great improvement was shown in railway matters, the companies meeting the department more than half way; no one could say that the railways in Quebec were now a menace to the timber lands. He believed that the debris on colonization roads could be burned without danger to the forests. Mr. R. O. Sweezey had outlined a scheme for dealing with fire protection on the Upper Ottawa by means of motorboats. Other associations for the Upper Ottawa ought to be formed, and the Gaspe Peninsula should be taken care of. As to cleaning up debris fringing upon the right of way, there should be very little difficulty in dealing with this question. Last year 15,000 permits for burning slash were issued and 9,390 operations of slash burning carried out. The system had proved an unqualified success. He suggested that a standard of value as to damage should be established.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

WANTED TO BUY Cedar Ties, also 1-in. Pine, Spruce and Basswood Culls. Apply M. Brennen & Sons Mfg. Co., Hamilton, Ont. 3-4

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Maple Wanted

Wanted several hundred thousand feet of dry 4/4 Maple for prompt shipment. Apply at once to Box 504, Canada Lumberman, Toronto, Ont. 3-6

Lumber Wanted

Wanted for delivery in March, April or May, 150,000 feet Soft Elm, 2 in. — 3½ in. thick; also 3 to 5 cars 2 in. and 3 in. thick Rock Elm. Reply Box 517, Canada Lumberman, Toronto, Ont. 4-7

Wanted To Buy

A good firm established in an Eastern City, which so far has been specializing in selling Eastern Lumber, would like to make connections with a B. C. mill handling Western lumber, as Fir, Cedar, Hemlock, etc. Would buy direct or sell on a commission basis. Could deal good business after a while, for a firm having the right prices. References supplied on demand. Apply at once to Box 523, Canada Lumberman, Toronto, Ont. 4-5

For Sale–Lumber

Lumber For Sale

Spruce bill timber cut to order. Mill now sawing. Hendun Lumber Company, Limited, Haileybury, Ont. 3-4-5

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.

Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
Montreal, Que.

WHITE PINE LUMBER

250,000 ft. 1 x 12 No. 1 White Pine Mill Cull.
50,000 ft. 1 x 10 No. 1 White Pine Mill Cull.
100,000 ft. 1 x 10/12 in. No. 3 Common White Pine.
200,000 ft. 1 x 4 and up, White Pine, No. 2 Mill Cull.
100,000 ft. 2 x 4 and up, Sound Wormy White Pine.
100,000 ft. 1 x 4/5 in. Sound Wormy White Pine.
100,000 ft. 1 x 4/6 in. Mill Run White Pine
100,000 ft. 6/4 x 4 and up Mill Run White Pine.
50,000 ft. 2 x 4 and up Mill Run White Pine.
18,000 ft. 5/4 in. Dressing and Better.

DRY STOCK

The Elgie & Jarvis Lumber Company, Ltd.,
18 Toronto Street,
4-4 Toronto, Canada.

For Sale–Machinery

Refuse Hog

Party willing to purchase a used refuse hog for saw-mill. Apply Box 518, Canada Lumberman, Toronto, Ont. 4-7

Door Machinery

Complete Dowel Door Outfit, includes double-end tenoner, stickers, borers, power clamps, dowel sticker and driver, glue pots, etc.; all manufactured by E. B. Hayes, U. S. A.

CANADIAN WOOD PRODUCTS, LTD.,
1,000 Gerrard St. East,
Toronto, Ont.
Phone Gerrard 2100 4-4

FOR SALE

1—Wicks Gang.
1—Ideal Engine, 13 in. x 12 in.
1—Plain Engine, 16 in. x 24 in.
1—Plain Engine, 5 in. x 7 in.
1—Boiler, 72 in. x 16 in.
1—Boiler, 54 in. x 12 in.
2—Upright boilers.
1—Cookston water heater.
Several steam pumps.

CHAS. PEDWELL,
16-t.f. McVicar, Ont.

Bargains in New Saw Mill Machinery

Immediate Delivery

1—No. 1 RODGERS LATH MILL. Capacity 100,000 lath per day. Weight 1,400 lbs. $200.00

1 RODGERS 3-SAW GANG BOLTER. Rips slabs up to 6-in. thick into 1½-in. bolts ready for lath mill, very fast. Weight 1,530 lbs. $200.00

1 No. 2 RODGERS LATH MILL. Capacity 50,000 lath per day. Weight 700 lbs. $150.00

1 RODGERS MEDIUM SIZE GANG CLEAT RIPPER, STYLES. Fine for planing mills and box shook factories. Takes stock ⅜ in. to 2¾ in. Weight 946 lbs. $200.00

1 RODGER—60-IN. JUMBO EDGER. Big bargain. Former price $695 now $250.00 Weight 7,900 lbs.

1 LINDERMAN SLAB RESAW. Just the machine to convert slabs into lumber. Often possible to get 400 to 700 ft. of lumber from cord of ordinary slabs. Cuts 7/16 in. to 1¼ in. Former price $475.00. ..... $175.00

All prices F.O.B. Muskegon, Mich.

Also a number of new Edger and Rip Saws (some inserted tooth) which we will also sell very cheap. Full description on request.

We are selling out our saw mill machinery department and consequently wish to dispose of all new machines on hand and are offering them at unprecedented prices for quick sale.

We are making complete arrangements with our successors to carry parts in stock for all above machines.

LAKEY FOUNDRY & MACHINE CO.,
F Muskegon, Mich.

Chopper For Sale

For sale one Joliette Chopper, 13 inch; in first class condition. Apply J. W. Tuttle, Curries, Ont. 4-7

Machinery For Sale

Cowan No. 2 Double-Surface Planer and Matcher. Cowan Vertical Boring Machine, in excellent condition, at bargain. A. J. Lindsay, 92 Pembroke Street, Toronto. 3-6

Drum Sander

One 48-in. three drum Sander, with brush; as good as new.

E. C. Bradley Lumber Company,
4-4 Cincinnati, Ohio.

For Sale

One light single surface Planer and Matcher. Also one slide valve engine, about 40 H.P., with boiler. Would take lumber in exchange. Write E. W. Tench, Waterford, Ont. 4-4

For Sale—Box Machinery

4-track Doig Nailing Machine,	$160.00
4-track Morgan Nailing Machines, (2) each	$200.00
6-track Doig Nailing Machine	$250.00
8-track Morgan No. 8 Nailing Mach.	$450.00
9-track Morgan Nailing Machine ...	$490.00
9-track Doig Nailer and Cleater ...	$500.00
10-track Doig Nailer and Cleater	$550.00
10-track Doig Nailing Machine	$450.00
12-track Morgan Open Back Cleater	$1,050.00
2 Fischer 48-in. Double Disc Sanders each	$90.00
1 30-in. Chase-Turbine Press & Sizer New	$210.00
1 Clement Hand-Hole Machine	$90.00
1 Bottle Box Groover	$100.00
1 Box Board Squeezer, M-J No. 40	$550.00
1 Doig 2-head corrugated Fastener Driver	$340.00
1 Morgan No. 4 Lock Corner Cutter	$350.00
1 Morgan No. 8	$325.00
1 Connell & Dengler 1-color Printer	$225.00
1 Connell & Dengler 2-color Printer, 44 in. x 60 in., cost $1,400.00 ..	$950.00
1 Morgan No. 1 Setting-Up Machine	$250.00
3 Box Board Matchers, Morgan ...	$300.00
American	$200.00
Fischer	$175.00
Woods No. 202	$175.00

Send us your inquiries for any machines wanted.

Chas. N. Braun Machinery Company,
4-4 Fort Wayne, Indiana.

List of Saw Mill Machinery For Sale

Item No. 1—One Circular Resaw, complete, with two saws. Condition good. Wm. Hamilton Co. make.

Item No. 2—One Large Circular Saw Frame, pulley and arbor complete, (Metal frame), good repair. Waterous make.

Item No. 3—One Seven Block Carriage. Can cut sticks up to 40 feet in length. Wm. Hamilton Company's latest make. No set works.
80 feetV Steel track.
80 feet Flat Steel Track for same.
Three 1¼ in. Served Steel Wire for feed for same.
One Cunningham Twin Engine for above carriage. Practically new.

Item No. 4—50 feet V Steel Track.
50 feet Flat Steel Track.

Item No. 5—Three Head Blocks and Bunks, with Payette dogs for Hamilton No. 2 Carriage.

Item No. 6—One Twin Saw Frame and Arbor, pulley and saws with track and feed chain complete. Condition good. William Hamilton Company make.

Item No. 7 — One Lath Mill. One Bolter. One Picket Machine with saws. In fair repair.

Item No. 8—One New Mershon Horizontal Band Resaw and saws complete. Only used part of one season.

Address
The Colonial Lumber Company, Limited,
4-7 Pembroke, Ont.

For Sale

Portable Sawmill: Bell engine and boiler; 25 horse power; both in good condition; mill has double edger and slab saw; price $1,200. F. Taylor, 95 Duke Street, Hamilton, Ont. 3-4

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

BAND SAWYER wants position, right hand mill preferred; 20 years' saw mill experience; first class references. Box 495, Canada Lumberman, Toronto, Ont 4-7

BAND SAW FILER wants position for the coming season. Twenty years' experience on double and single cut. Sawmaker by trade. Can take care of all kinds of saws. Best of references. Box 447, Galt, Ont. 3-4

WANTED POSITION, by a first class mechanic, 25 years' experience in charge of modern high capacity Saw Mills. Can handle any type machinery. Address first instance, Box 497, Canada Lumberman, Toronto, Ont. 2-7

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

ESTIMATOR AND ORDER CLERK wants position; can work from plans. Draughtsman. At present employed as assistant to the superintendent of a large factory making all kinds of sash, doors, trim, and special millwork, etc. Best of references; 24 years old. Single. Box 521, Canada Lumberman, Toronto, Ont. 4-4

POSITION WANTED AS MANAGER OF LUMBER AND WOODWORKING BUSINESS, thoroughly experienced in Lumber, Factory and Office routine; expert organizer, and capable of producing maximum results; 15 years with one large Ontario company; at present engaged. Best credentials. Box 516, Canada Lumberman, Toronto, Ont.

WANTED POSITION AS SUPERINTENDENT OR FOREMAN in planing mill. Am thoroughly experienced in all lines of interior fittings,, sash, doors, hardwood flooring and box making. Can estimate and do draughting. First class on blue prints. Can handle cost systems, get results and cut costs. References. Box 512, Canada Lumberman, Toronto, Ont. 3-6

CHIEF ENGINEER wants position; 14 years' operating experience. Electrician and erection of steam and electrical apparatus; practical machinist. Would either take charge of plants or superintend construction, location in western part of British Columbia preferred.

Address Box 505, Canada Lumberman & Woodworker, Toronto, Ont. 3-4

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

WANTED — COMPETENT MECHANICAL DRAUGHTSMAN, one familiar with sawmill and pulpmill machinery preferred. Kindly state age, training and experience in first letter. This position is with a large concern, and offers exceptional opportunities for the right man. Box 502, Canada Lumberman, Toronto, Ont. 3-4

WANTED BY LARGE LUMBER CONCERN, an accountant experienced in the lumber business, who is capable of acting as office manager. Address application to Box 520, Canada Lumberman, Toronto, Ont.

WANTED YARD FOREMAN AND SHIPPER, able to handle men and thoroughly conversant with Hardwood and Softwood Gradings. Mostly U. S. shipments. Mill capacity 65,000 per day. Province of Quebec. Do not apply unless able to fill the above requirements with margin. State salary. Both languages necessary. Snap holds the job. Box 524, Canada Lumberman, Toronto, Ont. 4-5

Business Chances

For Sale

Planing, saw and chop mill, and auto truck, 1¼ ton capacity, jacks, pipe dies, vise and anvil. Everything as it is half price. Want to go West. Apply to John McCormick, Lawrence, Ont. 1-6

WANTED

By B. C. Manufacturer, two or three live salesmen in Ontario and one in Montreal, to sell B. C. Red Cedar Shingles and Fir Lumber on a commission basis. Have large output of Shingles, specialize in Fir Timbers. Box 526, Canada Lumberman, Toronto, Ont. 4-5

For Sale

Saw and planing mill, with lumber yard, and about $5,000 stock; good village and farming community in southern Ontario. Excellent railway facilities. Price $15,500.00. Box 510, Canada Lumberman, Toronto, Ont. 3-6

FOR SALE

Valuable Spruce Timber Lands. This is an exceptional opportunity for pulpwood. This property is situated on the Canaan River and its branches, within easy reach of navigation. The mill in connection with this property is at Coles Island, within 60 miles of St. John, at the head of navigation on the Washademoak Lake, a tributary of the St. John River. The property contains about 47,000 acres. About 15,000 freehold and 32,000 New Brunswick Government limits. This property has been exceptionally well protected and as to the freehold, has on it an exceptional spruce growth which is in excellent condition, and would produce a very large quantity of superior quality of pulpwood.

For further information and details, apply to

THE S. H. WHITE CO., LTD.,

3-6 Sussex, N.B.

For Sale By Tender

One of the best factories in Western Ontario, known as The Blonde Lumber & Manufacturing Company, situated in Chatham, Ontario, central position with dock on River Thames. Two and three storey brick building in excellent condition, suitable for almost any line of manufacture. Full description of plant, with blue print, furnished on application. The highest or any tender not necessarily accepted. Tenders will be opened on March 1. For full particulars apply to

The Blonde Lumber & Mfg. Co.
Chatham - Ontario
4-4

WANTED—Salesmen to represent a reliable British Columbia Lumber and Shingle Manufacturing Company in Eastern Canada. Good proposition to the right men. Apply Box 519, Canada Lumberman, Toronto, Ont. 4-4

FOR SALE — Factory and property at Mount Albert, Ont., 4 acres land, 7 acres water and water power, complete, 3 storey building, 40 ft. x 80 ft., stone foundation, 3 floors, approximately 9,600 feet, also lean-to, one storey, 20 ft. x 40 ft., and separate office on ground near street, 23 ft. x 25 ft. Boiler and engine auxiliary power equipment. Mill pond valuable for fishing and power. Splendid shipping facilities, C. N. R. and G. T. R. Electric light available. Ten years' exemption from taxes can be arranged. Cheap labor and comfortable homes in village. Apply Wrights Limited, 22 College Street, Toronto. 4-4

Miscellaneous

Timber Limits For Sale

For sale berth 161,, Blind River waters, well situated and easy to log. 12 millions of Hemlock, 4 millions of Pine, 5 millions of Birch and Maple, and a large quantity of Ties and Cedar. Good mill here to cut stock. Drawer 67, Blind River, Ont. 2-5

Canada has lost through forest fires in 1916 over nine million dollars worth of timber, more than six times the amount spent on forest protection. The big fire in Ontario's clay belt alone called for the sacrifice of 262 lives and a destruction of property estimated at six million dollars.

HARDINGE
Watchman's Clocks
Write for details
SIGNAL SYSTEMS CO.
205 Stevenson Bldg., TORONTO

LUMBER WANTED
HARDWOODS
WE SEND INSPECTOR
WAYNE LUMBER CO.
44 WHITEHALL ST.
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"CHEVROLET" CAR For Sale

Cash Price - $450.00

As good as new, in use only four months. Owner is overseas. Information from

M c/o Box 506
Canada Lumberman
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Limited

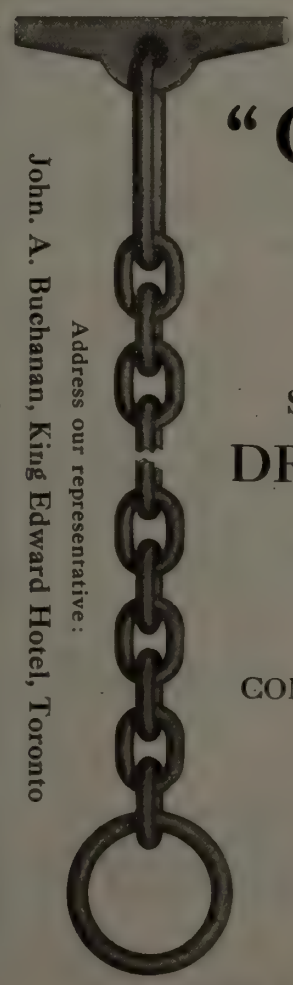
SAWING NOW!!!

Red and Jack Pine

can cut special bills up to 10x10-16

Union Lumber Co., Limited

701 Dominion Bank Building
TORONTO, CANADA



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COMMERCIAL & SPECIAL
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Quality and Service Our Motto

JAMES McKAY CO.

Pittsburgh, Penna., U.S.A.

Review of Current Trade Conditions

Ontario.

Trade conditions in Ontario, while showing no important change during the past fortnight, continue to warrant the general feeling that the spring will witness a considerably improved volume of business. There is no doubt that anything in the way of an improved demand for building purposes will find a market characterized chiefly by scarcity of stocks of all kinds and high prices, tending to go still higher. That there is likely to be a better house-building trade this year than since the war broke out is indicated by the building returns and reports from various important centres. Already the building permits have shown a tendency to increase to an encouraging extent beyond those of last year. Of course, it would be absurd to base any definite hope upon this situation, as it will need an enormous increase, comparatively speaking, to put the building trade on a normal basis, but any increase will be welcome, more especially as an indication of a tendency toward better things.

As to the other sources of consumption which have constituted the chief features of the trade during the past year, there is nothing new to report. Furniture factories continue to do well. Agricultural implement manufacturers are busy, and munition box makers are busier than ever before. Very large orders for shell box orders have been placed and others are expected. The trade with the United States during the present year is likely to be good, as conditions across the line continue on the active basis of last year. Of course, it is not an easy matter to foresee what will develop if the United States should become entangled in the European war, but, outside of this possibility, the outlook is favorable. The Eastern States promise to take greater quantities of Canadian stocks this year than formerly, so that the amount of stocks coming into Ontario from Eastern Canada may be correspondingly curtailed.

As the winter advances the views we have expressed formerly regarding the likelihood of a great shortage of stock during 1917, accompanied by high prices, are being verified. No one can contradict the fact that a great shortage already exists, of a more acute nature than any that has ever been known before, and that this shortage will continue and increase as the season advances. Indeed, it is a great problem already where the shell box manufacturer will get the material for their contracts, or where other material required for war purposes will be secured. The demand for spruce for shell boxes is very large; also mill cull white pine is in better demand.

The hardwood situation continues strong. Prices in all lines are strong and stocks are scarce, especially birch. There is very little dry birch in the country. An interesting development of late is the appearance of a good demand for aspen for toy work. It is expected that this market will increase to a considerable extent in the near future.

Eastern Canada.

The trade at Montreal is chiefly concerned with the shell box situation and with the shortage of cars resulting from embargoes. Outside of the shell box business there is very little trade in progress, although a fair number of enquiries are reported. Dealers are unable to promise delivery with any certainty, because of the freight situation. New orders for Bethlehem boxes have been given at 98 cents per box, which is 12 cents per box lower than previous prices. Some improvement is reported in the outlook for the building trade, permits for January being slightly larger than for January, 1916.

The demand for spruce at Boston is increasing gradually. Retailers in many instances have only light stocks, and are finding it necessary to replenish. Frames are firm at $32 base. The market is undoubtedly a seller's market, and promises to continue so for some time. Narrow sizes of random are scarce. Current random quotations are: 2 x 3, $27 to $28; 2 x 4, $27 to $28; 2 x 5 and 2 x 7, $26 to $27; 2 x 8, $30 to $31; 2 x 10, $32 to $33; 2 x 12, $33 to $34. The demand for boards continues to improve, and prices appear to be stiffening. Firmer prices are reported for hemlock at Boston. Boards of fair quality have advanced about 50c, selling now at $23.50. It is expected that $24 will be quoted soon. There is a fair volume of trade in hardwoods at Boston. Thick lumber, especially birch and maple, is scarce. Quotations on firsts and seconds inch are: Basswood, $45 to $48; maple, $45 to $47; plain oak, $63 to $65; quartered oak, $88 to $91; sap birch, $51 to $53; white ask, $56 to $60. The market for shingles at Boston is showing steady improvement. The lowest quotation for white cedar extras is $4.50, which is $1 higher than the price last summer. White cedar clears are offered at $4 to $4.10. Sales of spruce lath, 1⅝ in., are reported at $5. For 1½ in. the range is $4 to $4.10, and the tendency is strongly upward.

Great Britain.

The spruce market in Great Britain continues as strong as ever. Most merchants are basing their prices not on the actual cost of their wood, but on the probable cost of fresh imports. Naturally there are very few buyers on such a basis. English importers already realize the fact that Canadian supplies are extremely small for this time of year. A reduction in the receipts of Canadian spruce during 1917 is generally anticipated. Moreover, the new chartering order, if strictly interpreted, is expected to keep the stock of spruce in Great Britain lower than it might otherwise be. If Canadian shippers are obliged to pay the freight at the Canadian end the difficulty of carrying on this trade will be greatly increased and a reduced volume certain. A recent report, of great importance to the export trade from Canada to Great Britain, is to the effect that the British Government has decided practically to commandeer profits of shipping companies in excess of 7½ per cent., after making a reasonable allowance for depreciation, etc. If this step is taken the effect upon the trade is likely to be far-reaching. Stocks now on hand in Great Britain purchased on a high rate of freight may become a source of heavy loss if the shipping companies, finding their hands forced by the British Government, decide to reduce rates. At present both spot and c.i.f. quotations for spruce are very strong, being at the highest level ever hitherto reached. Consumers, although they see little or no chance of doing better by waiting, are hesitating to speculate at present. Most of the trade is, therefore, for immediate requirement.

At Foy, Morgan & Co.'s recent auction sale unsorted Quebec spruce, 3 x 9, sold at £31 10s. First and third white pine, 3 x 11, from Montreal, brought £37 10s. A lot of unsorted 3 x 9 spruce from Quebec sold at £32 15s. Some 3 x 7 and 8 second white pine from Montreal brought £37 10s.

The trade at Liverpool is seriously handicapped by shortage of labor at the docks and consequent congestion of stocks.

It has become extremely difficult to complete new contracts at Liverpool on a c.i.f. or ex quay basis. It still remains to be seen to what extent buying on f.o.b. terms will develop. The outlook for bringing forward adequate supplies of wood goods during 1917 is not encouraging. No change is reported in trade conditions at Glasgow. Imports are now of a very scanty nature, and are expected to continue so for some time to come. Stocks of spruce are fairly adequate, except for the broader sizes. The volume of consumption, however, continues on a large scale, and stocks are likely to be greatly depleted during the next few months. The tendency of prices continues upwards.

United States.

Conservatism and caution are likely to develop in United States business as a result of the breaking off of diplomatic relations with Germany. Nevertheless, the total volume of transactions in the chief lines of trade show that the United States continues to experience prosperity such as it has never known before. A steady tone is reported in the market for Southern yellow pine. There are no noticeable advances to report, but the price concessions of a few weeks ago have disappeared. The production of yellow pine of late has been well below normal, and shipments since the first of the year have either been normal or considerably above. Orders since the first of the year have gone far ahead of shipments.

The situation in connection with Northern pine and hemlock shows little change, in spite of the car shortage; stocks have not been accumulating, and the possibility of some of the producing mills withdrawing from the market temporarily is reported. In Chicago an advance of 50c per thousand on all items from No. 3 up is reported. Douglas fir producers are being overloaded with orders, particularly for car shipment. Production has been held down by bad weather to some extent.

The car shortage situation is an unpleasant factor in the trade, particularly from the point of view of the retailer. Retail stocks in many sections are not large enough even for current requirements, and transportation difficulties are making it hard for them to stock up. Should the United States actually get into the war, the government might take over rail transportation in order to facilitate the shipment of war supplies, and the retailers would find themselves in a very nasty situation unless they had extensive stocks on hand.

Recent news from Buffalo is to the effect that white pine prices have been advanced. Stocks are scarce, and the difficulty of obtaining new stock is increasing. Uppers and selects have advanced $5 per thousand. Fine common, in thick widths, is $5 higher; other widths,

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

$2; shop lumber, $1. The intermediate grades are $3 higher and box lumber $1 to $2 higher. A heavy demand is reported for this time of year. At North Tonawanda the better grades of Northern pine have seldom been in better demand. Cars have been a little more plentiful of late, and have helped considerably in securing orders. The market for hemlock at Buffalo continues strong, and advances of $1 per thousand are reported on certain grades. Long timbers are scarce and are selling at a premium. Still higher prices are expected before spring. At North Tonawanda heavy orders for hemlock have been received of late for prompt shipment. No price advances are reported since December, but wholesalers are looking for higher quotations in the near future.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Shell Box Business Predominating at Montreal

Montreal, Feb. 8.—(Special to the Canada Lumberman.)—Orders for shell boxes and the shortage of cars consequent on the embargoes are the main factors in the lumber trade. Except for box lumber, business is restricted. There are a fair number of enquiries, but the disorganization of the freight service is such that it is exceedingly difficult to promise delivery. Cars for box lumber are given priority. Otherwise there are long delays in getting shipment.

The car situation is serious. Mr. A. D. Huff, of the Laurentide Company, states, with regard to pulp and paper, that it is very critical, and the same remark applies to lumber. It is an open secret that mills are in danger of being closed down for want of coal and other raw material, and also for the manufactured products. Lumbermen declare that the new regulations for loading and unloading, with the increased demurrage charges, have not worked out as expected, and the whole position is unsatisfactory in the extreme.

Further orders for Bethlehem boxes have been placed in Montreal at 98c per box, as against $1.10 previously paid. Some firms have turned down contracts at this price, although other, regular box makers, declare there is a profit at the reduced quotation. They, of course, are able to use the smaller pieces and culled lumber for commercial boxes, whereas the firms who are making shell boxes alone have no such outlet for this wood.

The new year has started well in the matter of building permits. For January the total was $249,895, an increase of $75,795 over the corresponding period of last year.

No change of any importance is to be noted in the pulp and paper markets. Both chemical and mechanical pulps are in excellent demand at good prices. Stocks are still very low, the decrease in ground wood, as compared with twelve months ago, being especially marked. Newsprint mills are working at capacity, although makers complain that, even at enhanced prices, the market is unsatisfactory, due to increased cost of raw material.

Churchill & Sim's Market Report

Churchill & Sim, London, Eng., in their annual wood circular, under date of January 1, dealing with the imports from Canada, say:

The trade in yellow white pine deals has been a small one, and the special demands of the war have not improved the consumption to any extent. Prices have been governed almost entirely by the freight situation and by the general appreciation of values of soft woods. These conditions have caused holders to ask for and obtain high figures during the season, but the volume of sales is comparatively small.

A very large business has been arranged in spruce to this country during the year, especially from the lower ports, from whence the great demand for the cheaper whitewood has been mainly satisfied, owing to the continued elimination of Riga and Petrograd shipments from the competition. The course of prices turned very naturally upon the freight position, which may almost be said to have completely dominated the market conditions. The summer weakness was occasioned by too much pressure to sell and no excessive encouragement to buy, but those importers who rightly gauged the future course of the demand and acquired stock at July levels found by the end of December that values had appreciated by some 25 to 30 per cent., and indications point to still higher prices this winter.

The trade in Oregon pine (Douglas fir) has been almost entirely limited to the importation of lumber shipped in steamer parcels, mainly to Liverpool and London. Prices here again have been entirely dependent on rates of tonnage. The importation of Oregon pine in the log has been very much reduced to all ports on account of the scarcity of ships with the requisite carrying capacity. Very high prices have been obtainable for what little stock remained after the heavy demand at the opening of hostilities had been satisfied, and the trade has since become more or less retail.

A large business has been arranged during the year in silver spruce (aeroplane stock) to British Columbia and Continental ports, and prices have risen steadily on the continued heavy demand for this wood for purposes directly connected with the prosecution of the war.

Referring to imports of wood pulp, they say:

The trade in wood pulp to this country has been seriously checked during the past year by two governing factors—i.e., the decision by the British Government to restrict imports to two-thirds of the normal pre-war quantities, and also the conditional export prohibition instituted in January, 1916, by the Swedish Government.

This Swedish embargo has remained absolute during the whole of the year, as far as the United Kingdom is concerned, with the result that British paper makers have had to depend chiefly on Norwegian, Canadian, and American sources of supply for their requirements.

During the first three quarters of the year, while the sound state of the paper market caused a brisk demand for paper-making materials, the supply of chemical pulp was inadequate, and prices soon rose to about five or six times the average pre-war values.

At the end of the year prices, although still very extreme, are showing a downward tendency. In view of the strong foreign competition for paper orders and the general decline in quotations, British paper makers can no longer afford to pay current prices for pulp.

In these circumstances the hope may be expressed that the negotiations which are at present proceeding in London between representatives of the British and Swedish governments will result in some trade agreement in the interest of all parties which will enable Swedish shipments of chemical pulp to this country to be resumed.

The market for mechanical pulp has been strong throughout the year. The heavy drop in freights during the summer enabled most of the Baltic mills to dispose of large quantities at remunerative f.o.b. values.

Smith & Tyrer's Liverpool Report

Smith & Tyrer, Ltd., Liverpool, Eng., report as follows: The wood trade during 1916 suffered some violent fluctuations, but upon the whole the results will probably be considered satisfactory. The possibility of further government restrictions is causing a feeling of uncertainty. Importers have acted on the cautious side, and will probably adopt a similar cautious policy during 1917. The month of December displayed a growing confidence, but with a tendency to limit operations to early supplies. Freights are a very uncertain factor, and, from present indications, higher rates and more limited space may be expected during the coming season.

Hardwoods.—The conditions are unchanged and prices quite firm. Spruce deals are dribbling forward in small quantities by the liners. Stocks are firmly held and prices well maintained, with an upward tendency. Space of any kind is difficult to obtain. Hemlock has improved in sympathy with spruce. Pine is in strong hands. Lower port stock can be readily sold. Pacific Coast woods continue to be hampered by the difficulty in obtaining space and the advancing and severe rates asked for what is available.

Albert C. Place, Boston, Mass., Buying Canadian Spruce

Albert C. Place, 131 State Street, Boston, Mass., manufacturer of yellow pine lumber and ties, with mills at many southern points, is widely known as an extensive dealer in spruce lumber for the markets of the United States and Canada. Canadian firms wishing to dispose of their stock through a reliable United States lumberman will be enabled, through Mr. Place, to get in touch with these markets. Mr. Place offers to buy spruce of all marketable kinds outright, and to pay 80 per cent. cash of the net invoice on receipt of bill of lading. Albert C. Place has been doing business in the Maritime Provinces for the past ten years, and is familiar with the requirements of Canadian manufacturers. He is also well known in Ontario and the eastern provinces, having enjoyed a considerable trade for some years past among railroads, lumber yards and car manufacturing trades to whom he has supplied southern longleaf pine. The average daily output of Mr. Place's mills is 1,000,000 feet. He is therefore in a position to handle large or small orders and to give quick service. Most of his Canadian shipments are sent direct from the mills through the Central United States to St. Paul and on to destination on the Grand Trunk Railway.

SUPPLIES!

WHEN you are wanting anything in the way of groceries and provisions for the Camp, we can tell you that we are specialists in this class of business. Having a large trade, and consequently handling goods in big blocks, we are always in a position to offer extra good values.

In abnormal times, like the present, when prices are extraordinarily high, we can pretty nearly promise that if you get in touch with us for quotations it is more than likely you will be interested. For instance, we quote:

Gallon Rhubarb - $2.25 **Half Chests Black Tea 19c**
Comadre Figs in taps 5¾ **Half Chests Japan Tea 18c**
50/60 Prunes, Reprocessed 25 lb. boxes 7¾

H. P. Eckardt & Company
Church St. and Esplanade, TORONTO

The Woodstock Lumber Co.
of 131 State Street
BOSTON - MASS.

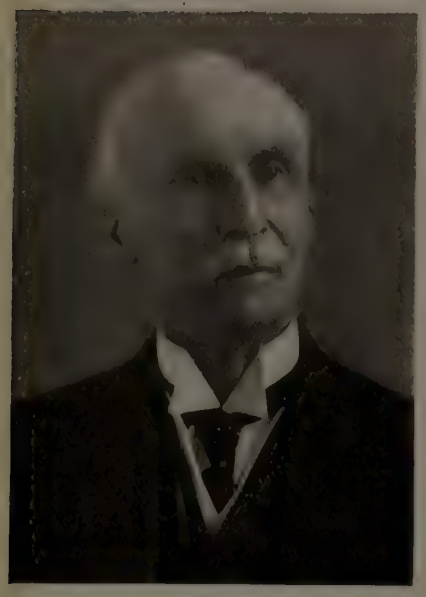
will buy Spruce, Pine and Hemlock Lumber and Lath, either delivered Boston or F. O. B. cars or alongside vessel.

If you have any lumber you wish to sell in the United States markets, why not write giving full particulars to

The Woodstock Lumber Co., 131 State Street, BOSTON, MASS.

Handle Production at Deseronto, Ont.

Dominion Hardwoods, Limited, Operating Large Fully Equipped Plant with Great Output—Description of Receiving, Manufactnring and Shipping Facilities



Mr. Charles Magee, President

Dominion Hardwoods, Limited, Deseronto, Ont., whose plant is illustrated herewith, although a recently organized industry, are already operating one of the most important wood consuming plants in Eastern Canada. The company was organized in March, 1916, and their first operations were commenced in June, 1916, when they began the manufacture of pail handles, broom handles, etc. They had not been in operation long when their plant was totally destroyed by fire. This did not discourage the stockholders and they immediately determined to rebuild the plant, with the result that by January 10th of the present year they had completed and commenced operations in one of the most modern and best equipped plants to be found either in Canada or the United States, which was erected at a cost of between $50,000 and $60,000. One may gain some idea of the completeness of this plant from the fact that it has a capacity at present of 45,000 broom handles and 75,000 pail handles per day. Moreover, when additional machinery which is now being completed has been installed, the company state that it will be the largest exclusive handle manufacturing plant in the world.

The plant of the Dominion Hardwoods Limited, is located at Deseronto on the Bay of Quinte, and, in addition to its excellent producing equipment, it has facilities for loading and unloading logs which cannot be excelled. It has also a storage capacity for 350 car loads of logs. On January 1st of this year the company had over 300 carloads of logs in stock.

Two railroad switches serve the plant. One is connected with the storage room for the loading of the finished product, and the other is an inclined switch for unloading logs. This switch enables one man to unload a car of logs in 27 minutes. From the cars, the logs are unloaded into the Bay of Quinte and then run by a jack-ladder to the cut-off saw, where they are cut to the required lengths. These drop automatically to a small car, which when loaded runs down an inclined track to the sawmills.

The sawmills are built right and left hand. The logs suitable for the different qualities of stock are handled at the sawmills and converted into boards which are taken into the saw room and converted into squares and rods necessary for the manufacture of various handles produced by the company. These are taken by automatic carriers to the turning room, where they are turned into finished stock and are then sent on to the rumbler or polishing room for finishing. When the polishing has been completed they are carried to the painting and enamelling room and turned out ready for the consumer.

Saw Mills for Production of Board Stock.

The illustrations give a good idea of the interior of the plant and its layout. The plant was built under the supervision of Warren C. Rude, architect and mechanical engineer, of Covington, Ky.

The company control nearly 100 square miles of the best hardwood in Canada, and are thus assured of a steady supply of timber for at least twenty years. In their plant they utilize chiefly birch, maple and beech lumber.

The power plant consists of four large tubular boilers and a 600 h.p. engine. All the equipment in the plant has been specially selected with a view not only to a rapid production, but also to the manufacturing of the highest possible quality of goods.

The officers of the Dominion Hardwoods, Limited, are: Mr. Charles Magee, president; Mr. E. McMahon, vice-president; Mr. H. E. McMahon, secretary and treasurer; Mr. F. C. Bate, Col. R. S. Lowe, and Mr. J. J. McCracken, the latter three being members of the board of directors. The company's capital stock is $150,000. All the officers of the company are men of prominence in Canadian industrial and financial affairs. Mr. Charles Magee was formerly president of the Bank of Ottawa, and president of the Union Trust Company, Toronto. Mr. E. McMahon is a member of a prominent contracting firm of Ottawa.

Cutting Lumber into Small Squares to be Turned into Handles.

Automatic Turning Machine for Turning Handles up from Squares.

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IF you're looking after the camp bill of fare, introduce a little ***variety***—let there be not too much of anything, but plenty of everything. Get away from that eternal "sameness" of diet which makes camp living so monotonous sometimes. The boys will not only appreciate your thoughtfulness, but they'll feel better and work better as a result.

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Heavy Smoked Hams

Never mind about writing a letter. Send us a wire at our expense—or call us up on the 'phone TODAY

THE WILLIAM DAVIES COMPANY LIMITED

Montreal TORONTO Winnipeg

Great Britain Trade During 1916

Foy, Morgon & Co., London, Eng., in their annual wood report, say:

The statistics of the import during the past year reflect both the restriction and the waste by which commerce is inevitably afflicted under the disturbing conditions of war. It will be seen that the volume of the supplies has shrunk enormously, being the smallest on record, while the cost has exceeded by several millions even that of the bumper year 1913. The trade has now had the experience derivable from three seasons of war, and it has to be recognized that the sense of satisfaction hitherto justifiably prevalent must now be mitigated by the consideration that it will be well-nigh impossible to sustain the volume of the supplies at a level consistent with the control of prices if these are to be kept devoid of dangerous inflation. In the first place, experience has shown that wood goods are requisite in an increasing degree to the efficient prosecution of the war, and, in the second place, that the difficulties in arranging the supply are becoming cumulative. Of course, due to the British control of the sea, the quantity of sawn and planed wood goods imported even last year is large—being at least equivalent to some two thousand steamer cargoes of 500 standards apiece—but, relatively to the national needs and as a wholesome check to the continued inflation of prices, more abundant supplies would have constituted a salutary safeguard. During the first season affected by the war the import dropped as regards quantity some 350,000 standards, to about four-fifths of the average pre-war level, while the average cost was only slightly increased. During the second season the quantity was maintained, but the cost rose about 50 per cent. During 1916, however, the position has been far less satisfactory, inasmuch as the shortage approaches 630,000 standards, which approximately represents a loss of one-third of the annual supply in normal times, while it appears that the average cost has been inflated by no less than 140 per cent.; and, as prices are still rising, the future may well breed anxieties for those who desire to maintain, if not a cautious, still a balanced judgment in directing transactions which might yield a decent margin of profit, or, again, could as easily result in very heavy loss. It remains an open question, however, to what extent the surplus of the government import could be called in aid to supplement the general stock left in the country. As the cargoes imported by the government in requisitioned steamers are not included in the Board of Trade returns (an omission which impairs the value of these statistics, and for which it is difficult to conjecture any valid reason), the volume of these supplies is merely a matter of guesswork, but it is generally understood that the quantity has been very large much greater than in the previous year, especially from Russia and Canada, so that the probability is that the government would be in a position to release part of their "reserved" stock of wood goods should prices soar to impracticable heights. The following table shows the increase in the average import cost per standard during the last nine years:

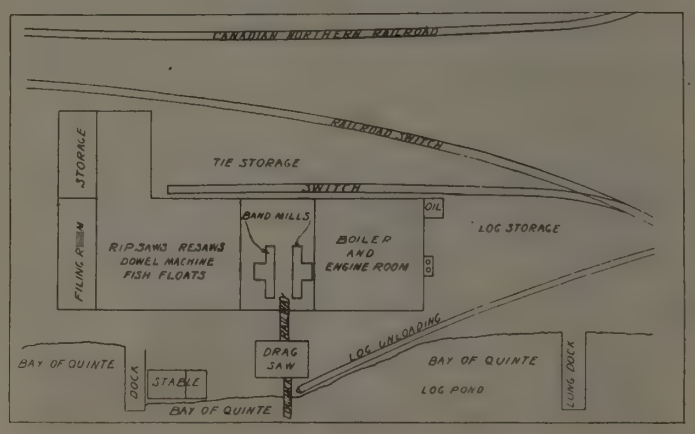
1916—£24 10 3	1913—£10 9 3	1910—£9 9 3
1915—£15 11 0	1912—£ 9 18 3	1909—£9 0 3
1914—£10 13 0	1911—£ 9 9 0	1908—£8 16 6

It will be seen how stupendous the increase in cost has become, and it may be of interest to point out that, in the aggregate, after making allowance for the diminished supplies during 1916, the nation has paid about ten million sterling more than for a similar quantity in 1915, and sixteen and a half millions more than in 1914. This additional burden of cost is mainly attributable to the enormous increase in freights, and, although the prices of wood have gradually stiffened at the shipping ports abroad, in common with the costs of production throughout the world, it will be no exaggeration to say that at least three-fourths of this extra outlay for wood goods has gone into the pockets of shipowners, chiefly of Scandinavian nationality. The dearth of tonnage has been specially felt, because, owing to its bulk, few trades require so much shiproom as wood goods; and, although, unlike the previous year, when freights moved in one direction only, continually upwards, the market has had to submit to violent fluctuations (four months wherein freights were practically doubled, followed by three months which nearly brought rates back to the starting point, and since middle August up again in an irresistible fashion towards the maximum rates current in the spring), it must be said that the cost of carriage to these markets on the average has been ruinously extravagant. In short, freight has been the dominant factor in the cost of goods, and current prices represent the hire of tonnage more than the expenses of manufacture.

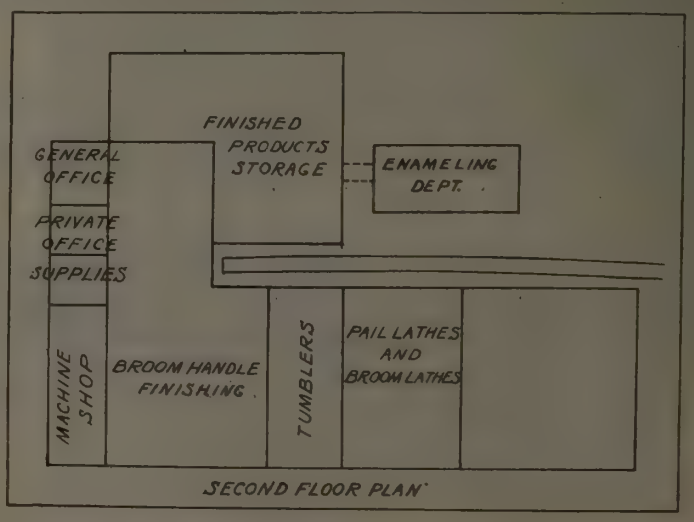
As regards the sources of supply, it will be seen that the contributions of the different exporting countries are in about the same proportions as in the previous year. Sweden and Norway are, however, the only countries which show absolutely an increase in quantity when compared with the average of the previous five years. Russia, for the time being, has fallen sadly from her high estate—from the position before the war of supplying more than half our total requirements, her exports have dwindled to one-fifth. The best comparison is always between the tendency culminating in the statistics for 1913 (pre-war trade) and later developments under war conditions. From this point of view the prospects of Canadian trade are, on the contrary, encouraging, the proportion of imports now exceeding 20 per cent. of the total, whereas prior to the war it barely reached 15 per cent. The relative proportions derived over a series of years from the different exporting countries are stated in the following table, which shows the encroachments of Scandinavian and Canadian goods since the war, at the expense of the Russian:

	1916.	1915.	1914.	1913.	1912.	1911.
Russian goods	16 p.c.	17 p.c.	35 p.c.	51 p.c.	49 p.c.	47 p.c.
Scandinavian goods .	50	48	33	25	27	25
Canada and U.S.A...	27	30	25	22	23	26

The result of the past year's trading has proved to be highly successful—probably more so than was the case even in the previous year—and this has been achieved in spite of the greater difficulties against which merchants have had to contend. Whereas business throughout 1915 was conducted under the shelter of a steadily rising market, last year's trading has disclosed many pitfalls for the unwary. Market prices, as well as freights, fluctuated seriously at times; the exchange played unexpected pranks, thereby falsifying estimates as to cost, while the unusual conditions of charter imposed by shipowners introduced the constant threat of demurrage. The abnormal condition of trade is seen in its results; profit and loss have been respectively on a larger scale, and the customary trade with narrow margins has disappeared. The past year may be divided for convenience of retrospect into three equal parts. During the first four months business continued profitable and active, thus prolonging the satisfactory condition of trade characteristic of the previous year. The second period—May to August—witnessed a fall in prices more rapid even than the previous rise, the difference between the highest and lowest prices reaching £7 to £8 per standard. This reaction was simply the result of the curtailment of government orders, and shows how highly sensitive a market becomes as soon as prices pass much beyond the limits of ordinary experience. So largely is the market dependent on war work that it is to be feared any cessation of government orders in future will similarly precipitate a slump in prices, which, therefore, is



General layout of the plant of Dominion Hardwoods, Limited, Deseronto, Ont.



Second floor plan of the factory of Dominion Hardwoods, Limited, Deseronto, Ont.

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CANADA has another big war opportunity: Great Britain needs more wood pulp. Install a small Soda Pulp Plant and Supply this need by converting your Slats, Tops, Bottoms and waste wood around the Saw Mill into pulp. We can dispose of any amount. Previous sources of supply in Sweden, etc., have recently been withdrawn and Canada now has a free field in Great Britain to market unlimited quantities of wood pulp. We can arrange contracts for long periods.

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likely to be the first, although not the enduring effect of any serious approach to peace. These losses during the summer affected trade circles pretty widely, especially those with large commitments for forward delivery, being aggravated by the simultaneous drop in freights and the depreciation of the Swedish exchange. The collapse which threatened was, however, averted by the renewal about mid-August of government orders, which eventually assumed even larger proportions than before. Confidence was ultimately rehabilitated, so that during the last four months an extended and highly profitable business has been possible which has not only wiped out previous losses, but brings the year to a close on a note of unprecedented prosperity. The past year, however, has not facilitated the operations of the mere speculator, who at least has not enjoyed the immunity from loss which the uninterrupted rise of prices provided in 1915. On the contrary, there have been instances of speculative buying and wild chartering (on the part of firms not ordinarily trading as merchants, who saw an opportunity of intervening while the dispute between the importers and the shippers as to the basis of business was being settled), which have been followed by the disastrous results so often typical of rash attempts to find a short road to wealth.

Referring in detail to imports from Canada, Messrs. Foy, Morgan & Co. say:

Pine.—Prices have risen in the wake of those for other varieties of wood, e.g., as a substitute for Baltic, especially owing to the general scarcity of 11-inch widths. Pine, however, has shown very little vitality on its merits, owing to the absence of demand from the cabinet trades. The extravagant freights—325s. to 400s.—maintained from the St. Lawrence greatly handicapped this business until the late autumn. During the last three months of the year there has, however, been a large demand for stock here, and prices have risen considerably in consonance with the scarcity and dearness of all other varieties of soft woods.

Spruce.—Quebec prices opened at £11 10s. for 3 x 9 in. and £9 5s. for battens f.o.b., with corresponding reductions for lower port stocks. A considerable business was done during January and February, due mainly to the large sales on f.o.b. terms concluded with the British and French governments, but there was considerable outside enquiry, so that a much larger trade would have been possible except that the insufficiency of tonnage and the constant and prohibitive rise in freights precluded selling on c.i.f. terms. Freights continued to rise throughout March and April and for some time in May (the rates about this time touching 400s.), with a corresponding increase in c.i.f. prices, which touched £30 c.i.f. for 3 x 9 in. and £28 10s. for battens. About this time, however, the release of numerous neutral boats from the coal trade with the Continent and the difficulties imposed on shipping from the White Sea led to a great increase in tonnage from the Canadian side, so that freights fell somewhat sharply in early June, the steamer rate receding to 360s. Moreover, in consequence of several cargoes being held up and put on the market at the last moment, in the expectation that even higher prices might be obtainable, there occurred simultaneously a reaction in c.i.f. prices even more pronounced than the drop in freights. In June, consequently, the market became very unsettled, an aspect by no means unfamiliar about the same period in previous seasons. The weakness in freights continued throughout June and July, steamer rates falling to 300s., while sailing ships for late loading were procurable at 250s. to 275s. Prices consequently dipped sharply some £5 to £6 per standard, with the consequence that in the case of a few vessels chartered at higher freights the c.i.f. prices obtainable reduced the f.o.b. value almost to vanishing point. The government was, at this time, again large buyers of spruce, which circumstance, by diminishing the temporary need of outside tonnage, contributed to the continued weakness of freights during the summer. After the middle of August a decided recovery in prices was manifested, development in this direction being only restrained by the comparatively cheaper prices at which Baltic goods were being offered. Owing to the large proportion sold in the earlier months, September and October proved a comparatively quiet time, but such surplus as was available for sale was easily marketed at a steady increase in c.i.f. prices. Lower port battens, which were valued at about £22 at the beginning of September, were readily saleable at £25 c.i.f. at the end of October. Thereafter prices rose rapidly, but, although record figures have been obtained for a few late cargoes, shippers can scarcely congratulate themselves on a highly profitable year's business, owing to the heavy losses incurred in the realization during July and August of the numerous cargoes, the sale of which was handicapped by such extravagant rates of freight as 350s. to 400s. Prices in these markets are exceedingly firm, owing to the great scarcity of whitewood of all kinds, and consequently the importers are now doing an unusually profitable business here.

Edmiston & Mitchells, Glasgow, Scotland, in their annual timber circular, say:

In view of the many difficulties which the timber trade had to contend with during the past year it has emerged from it in a more satisfactory manner than could have been anticipated, when due consideration is given to the upheaval in the commercial world generally, brought about by the war. As was the case in 1915, the market was largely dependent upon government orders for what prosperity it enjoyed and to this is due, in a special degree, the heavy call for packing case material, the consumption of which alone was considerably more than double all the other woods combined. After spruce the woods most in demand were pitch pine, teak, clear spruce (for aeroplane construction), and low-grade yellow (white) pine deals, sidings, and boards, while the most prominent examples of a reduced outlet, due to various causes, are Quebec waney boardwood, birch, the dearer grades of yellow pine deals, Californian redwood and sugar pine, and mahogany and furniture woods generally. In the case of hardwoods, the reduced consumption is due to two special causes, one of them the prohibition of imports, except under special license, and the other to the fact that many local cabinetmakers took up the manufacturing of ammunition boxes, etc., to the entire exclusion of furniture, for the duration of the war, presumably. Prices of every class of wood, without exception, were much higher than those ruling in 1915, the greatest increase occuring in cases such as spruce and pitch pine, where the freight forms such a large proportion of the delivered cost. One of the chief difficulties was occasioned by freight fluctuations, which from Montreal, starting at £20 a standard, quickly developed a weaker tone, until towards the end of the summer as low as £10 was paid. This, in fact, was the real cause of the sharp drop in prices which occurred in Canadian spruce and pine, though there were other factors also not without influence, one of them being a noticeable, though fortunately temporary, falling off in the demand, while another predisposing cause to force ex quay sales was that the various public storage yards were already abnormally congested. Towards the end of the year, as it became evident that supplies were not at all likely to exceed market requirements, prices quickly recovered, and are now higher than they have ever been before.

Shipbuilding requirements, which the market has for years past been largely dependent upon as its chief outlet for timber, proved on the whole disappointing; nor can there be any expansion in the demand from this source until sanction be given by the government to increase the production of merchant tonnage, which, however, there is some indication may not be much longer delayed. House-building has experienced another year of depression, but as there is an admitted scarcity of suitable dwellings for workmen in the city and district, an early revival in this important industry will create no surprise. Box-makers were exceedingly busy all year, and have still a lot of work to execute, it is understood, and similar conditions have existed in the engineering and wagon-building trades. As indicated, the furniture trade was upset by the difficulty of securing supplies of hardwoods and the increasing scarcity of workmen.

Imports into the Clyde exceeded last year's figures slightly, the chief increase being in white pine. The amount of timber consumed is also higher, to the extent of, approximately, 6 per cent., which, under all the circumstances, has quite realized expectations.

Stocks exceed last year's, but this is brought about largely by one or two items, and, outside of these they may be described as light.

As has been the case for some years past, there was an entire immunity from failures in the trade with any claim to importance. As regards the Clyde shipbuilding returns, there is no information available of the output of war vessels; and as shipyards generally were engaged almost exclusively on this class of work, the number of merchant vessels launched compares unfavorably with recent years, though it does not imply any falling off in producing capacity. As to future trade prospects, the position is so uncertain and obscure as to preclude anything like a definite pronouncement of what may occur, but it is reasonable to assume that business during the coming year will pretty much reflect present existing conditions so long as the war lasts.

Waney Pine Logs.—Import for 1916, 403 loads; consumption, 615 loads; stock at December 31, 1916, 1,740 loads. The demands during the year were disappointingly meagre, owing to the fact that shipbuilding energies have been concentrated almost exclusively on special government requirements. The stock remaining on hand, while by no means large, is probably sufficient to meet all demands for some time to come. Values have ruled firm, although they were much of a nominal nature.

Oak Logs.—Import for 1916, 2,005 loads; consumption, 1,007 loads; stock at December 31, 1916, 1,308 loads. Fairly good demands were in evidence, especially during the latter part of the year, when the railway companies displayed considerable eagerness in securing supplies against their prospective requirements. Stocks in first hands, both of first and second-class wood, are practically exhausted. Values have undergone steady appreciation.

Elm Logs.—Import for 1916, 1,049 loads; consumption, 1,368 loads; stock at December 31, 1916, 1,291 loads. First quality wood of good average dimensions has met with steady request for shipbuilding purposes, and there has also been quite a fair movement in other specifications and qualities. The stock remaining at this date is practically all held in second hands. Values have ruled very high.

Birch.—Logs—The extremely high cost of import had a very

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Try a shipment of "Cream of the West" Flour this season. That is by far the best method of satisfying yourself of the superiority of this hard wheat, wholesome flour. Your men will ask where you are getting all the good cooking, and they'll surely appreciate your efforts.

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The Hard Wheat Flour that is guaranteed for Bread

We are now shipping car lots of our high grade feed for the horses. Bull-rush Crushed Oats (best grade Western oats) and Geneva Feed (crushed oats and cracked corn) two of the best brands of feed you can possibly secure to keep the horses in good shape for the season's work.

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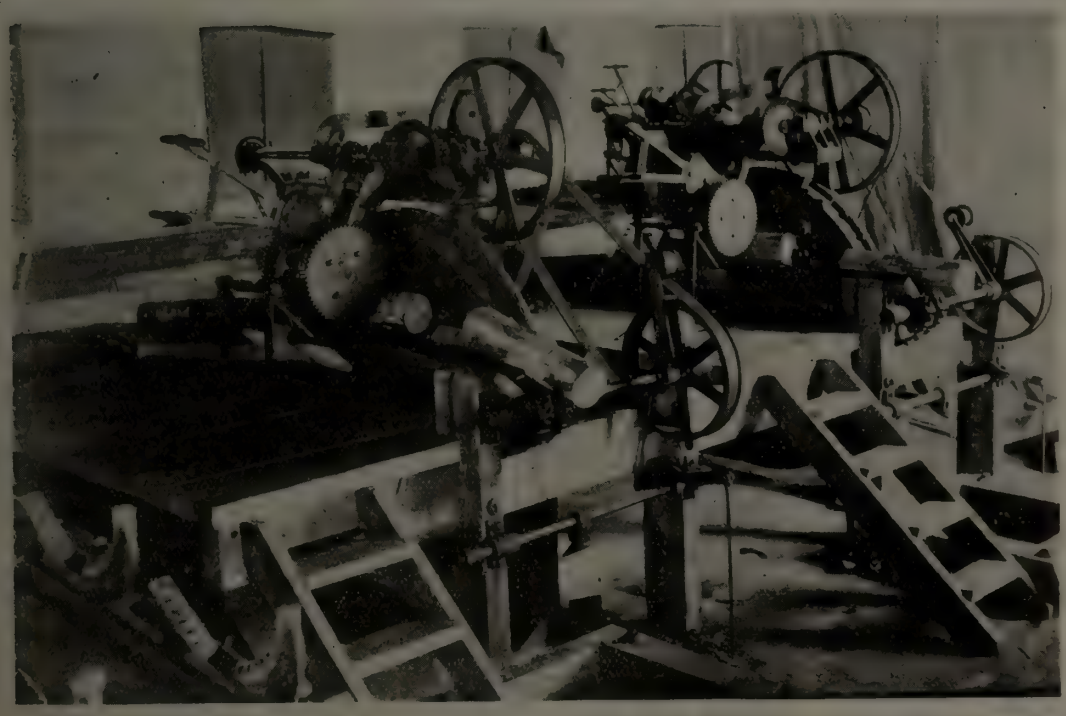
For Increased Rossing Capacity



supply the demand for pulpwood. The big paper mills want more than they can secure. Jenckes Rossing Machines will help you to take care of this profitable business.

These modern Barkers are the newest high-speed machines, and will handle all kinds of logs rapidly, with a very small amount of waste. They are fitted with the perfected Wilkinson block turning attachment, which economizes on both time and wood. It is unnecessary for the operator to lift or handle the blocks at any time. Strong construction and correct designing make these Barkers stand continuous hard usage. Write us for catalogue and prices.

We make machinery of all kinds for lumbermen and woodworking plants, including Boilers, Engines, Steam Log Haulers, and equipment of all kinds for power and production.

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Sherbrooke, Que.

ST. CATHARINES MONTREAL TORONTO COBALT TIMMINS VANCOUVER EDMONTON CALGARY

depreciatory effect on the demand for this wood, which has practically been non-existent, although with the growing scarcity of other timbers there are now indications of some improvement, and the prospects are more hopeful. Lumber.—Fair demands were in evidence during the year, but there was no dearth of supplies, which came forward rather freely in the latter months, and there are now ample stocks on hand.

Yellow (White) Pine Deals and Sidings.—During the first nine months of the year the demands were disappointing, and values gave way to some extent, partly in sympathy with the set-back which occurred in freights. The last three months have, however, witnessed a decided improvement in the situation, fair demands having arisen, particularly for the lower grades of deals, sidings, and boards, and values have sharply recovered. For first and second qualities the demand has, however, continued inextensive. Stocks, apart from planks and boards, are of quite ample proportions.

Spruce Deals.—Imports were on a very heavy scale, but the consumption was also much above normal. The opening months of the year found good demands in evidence and values ruling high, but with the weakness in freights developing, buyers were inclined to hold off, and values gave way to an appreciable extent. Latterly, however, a complete change has been effected in the condition of the market, active demands having sprung up, and values have topped the record figures of the early spring. There is now a pronounced scarcity of the broader sizes, particularly 11-inch deals, values on which are exceedingly firm.

Oregon Pine.—Planks have met with fair request during the year, and values have ruled very firm Good demands have existed for logs, but the market has been bare of stock available for sale.

Pacific Coast Spruce.—Clear lumber has met with active demand for special requirements, and a considerable business was transacted during the year at prices which have moved steadily upwards.

London Public Dock Stocks on December 31st

The following table of figures, furnished by Foy, Morgan and Company, London, shows the stock of wood in the London public docks at the end of each year:—

		1916	1915	1914	1913
Deals (Fir)	Pieces	968,696	919,803	906,520	1,641,245
Battens (Fir)	"	2,495,417	1,871,899	1,240,190	2,255,876
Pine	"	376,920	421,276	498,613	596,825
Spruce	"	922,687	1,181,476	687,709	883,158
Pitch Pine Deals	"	20,113	21,822	49,292	86,410
Deals and Battens in aggte.	"	4,783,833	4,416,276	3,382,324	5,463,514
Rough Boards	"	10,338,580	7,895,545	7,247,857	8,303,439
Planed Boards	"	4,474,643	4,128,150	4,622,989	4,382,952
Floated Timber	Loads	17,200	6,402	26,500	27,000

Extensively Interested in Canadian Trade

Among the numerous firms of lumber manufacturers and wholesalers in New England handling hard and soft woods, who distribute extensive quantities of Canadian timber in the United States market, one of the most progressive is the Hall Lumber Company, Boston, Mass., the chief members of which are Morris A. Hall and John R. Hall. The chief lines handled by this firm are spruce, pine, hemlock, lath and shingles. Among the Canadian companies whose stock they handle is the Davison Lumber Company, Bridgewater, N.S., who operate on 200,000 acres of timberland and cut chiefly spruce, pine and hemlock.

The Hall Lumber Company are also financially interested in the North Kotenay Land and Timber Company of British Columbia, in connection with which they expect to commence operations shortly and to produce spruce, pine and tamarack for Canadian and export trade to all countries. Government tests and the experience of consumers have shown that B. C. tamarack has a long and tough fibre which is well adapted for use in the manufacture of high grade papers. About two years ago the Canadian Pacific Railroad laid some 160 additional miles of first class standard roadbed extending from Golden, B.C., to Colvalli, B.C., to divert freight traffic from the main passenger line east and west and to assist in developing the Kootenay and Columbia Valleys, also with the idea of forming a link in a direct road from Golden to Spokane and Portland. Other recent developments have assisted in building up this section of British Columbia, and the North Kootenay Land and Timber Co. are confidently looking forward to continued and extensive growth.

Imports, Consumption, and Stock of Timber and Deals in Clyde for Last Two Years

		Imports		Consumption		Stock	
		1915	1916	1915	1916	1915	1916
Quebec Waney Boardwood,	Loads	1,245	403	679	615	1,952	1,740
Quebec Oak Logs	Loads	375	2,005	1,060	1,007	310	1,308
Quebec Elm Logs	Loads	1,703	1,049	1,596	1,368	1,610	1,291
		3,323	3,457	4,235	2,990	3,872	4,339
Que. Pine Deals, 1st qual., Ptg. Std.						178	253
Que. Pine Ends, 1st qual.,	"					72	95
Que. Pine Deals, 2nd qual.,	"					346	654
Que. Pine Deals, 3rd qual.,	"	18,531	20,749	16,819	17,115	961	1,424
Que. Pine Deals, 4th qual.,	"					52	754
Quebec Planks and Boards	"					430	169
Quebec Spruce Deals	"					4,531	6,580
Quebec Red Pine Deals	"					30	305
						6,600	10,234
St. John and Lower Port Spruce and Pine Deals	"	17,140	19,224	9,628	19,696	10,985	10,513
						10,985	10,513
Birch Logs, Quebec	Loads	4,174	2,392	4,487	1,827	525	1,090
Birch Logs, Low Port	"	68	56	68	56	....	....
Birch Planks, Quebec	"	3,709	2,330	4,057	2,207	705	828
Birch Planks, Low Port	"	1,324	1,424	1,594	748	946	1,622

The Canford mills of the Nicola Valley Pine Lumber Company produced 19,000,000 feet last season. This year they are arranging to handle 20,000,000 feet.

Mr. W. Williamson, manager of the Laurentian Lumber Company, Montreal, was among the forty passengers injured in the train wreck between St. Adele and Piedmont on Feb. 6. He was on his way to the mill at Annonciation. Mr. Williamson was in the last car, and, fortunately, his injuries are not of a very serious character, being practically all on the head.

Imports into the United Kingdom

The British Board of Trade returns give the following statistics of the import into the United Kingdom during the last five years:

Imports	1916		1915		1914		1913		1912	
Sawn and Planed:—	Loads	£	Loads	£	Loads	£	Loads	£	Loads	£
Russia	637,668	4,601,921	817,268	4,059,087	1,707,030	5,004,932	3,362,344	9,767,726	2,814,770	7,761,109
Sweden	1,530,767	10,875,733	1,800,970	8,079,793	1,326,753	4,175,630	1,370,998	3,834,147	1,220,958	3,272,270
Norway	430,212	3,302,878	530,609	2,539,429	262,068	1,022,016	294,617	1,069,586	309,716	1,026,216
United States	257,722	2,527,063	324,364	1,806,182	377,084	1,539,560	510,593	2,442,347	436,843	2,026,176
Canada	801,292	6,243,588	1,126,522	5,167,633	847,380	2,812,608	961,539	3,379,273	895,496	2,907,640
Other countries	28,626	197,260	46,643	295,109	104,820	396,801	136,046	541,483	89,806	340,956
Sleepers	226,549	1,317,225	178,208	781,388	215,543	656,000	.....	.....	.....	.....
	3,912,836	£29,065,668	4,824,584	£22,728,621	4,840,678	£15,607,547	6,636,137	£21,034,562	5,767,589	£17,334,367
Hewn and Pitprops	2,234,850	£9,159,751	2,490,739	£7,334,078	3,128,648	£6,528,148	4,380,321	£8,843,984	3,836,532	£7,941,950
Staves, Mahogany, etc.	171,186	£1,974,050	350,201	£2,716,065	463,320	£3,201,256	573,353	£3,910,810	454,263	£3,074,998
Grand total	6,318,872	£40,199,469	7,665,524	£32,778,764	8,432,646	£25,336,951	11,589,811	£33,789,356	10,058,384	£28,351,315

Cargoes imported by the British Government in requisitioned steamers are not included in the above totals. The volume of these Government supplies is not made public, but Messrs. Foy, Morgan and Company, London, Eng., state that it is generally understood to have been very large, much greater than in 1915, especially from Russia and Canada.

Get SMART-WOODS Prices for Mackinaw Garments

Mackinaw Pants and Coats

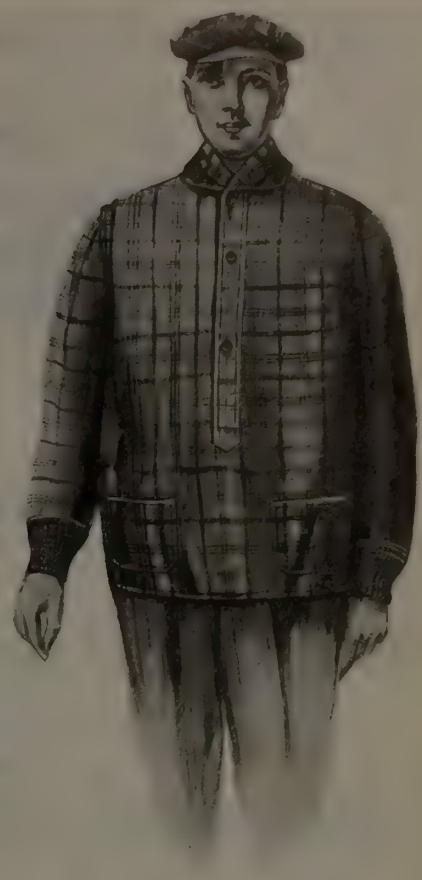
All pure wool. Fast color. Black and check.

Mackinaw Sweaters

(Something New)

A "Wind Break" has all the advantages of a sweater and jumper combined. Heavy felted cloth to break the wind. Absolutely all pure wool which guarantees warmth. Knit wool sweater cuffs. Adjustable collar to be worn open or closed. Two pockets placed where they should be. Grey with black check, red with black check. Blue with black check and brown with black check.

Write for prices and samples.



Write for Special Prices

Smart-Woods LIMITED

OTTAWA - TORONTO - MONTREAL - WINNIPEG

Original "Dunbar" Machines

We are the original and the only makers of "Dunbar" Shingle Machines, Lath Machines, Clapboard Machines, Steam and Gasoline Logging Engines. Each is the best for its particular work. Are you using the best?

Lath Machine

From our many years of experience we evolved this "Dunbar" Original Lath Machine. Every improvement that could be suggested, every time-tested idea for the betterment of product and for greater speed, has been incorporated in this machine. We believe it has no equal, and there are a great number of mill men throughout Canada who share this belief with us. Carefully constructed of high grade materials and designed to work steadily under the hardest conditions.

Steam and Gasoline Logging Engines

Conditions in Canada necessitate an engine that will stand any amount of strain and hard work in the lumber industry. With this idea in mind we have brought out the "Dunbar" engines perhaps a little stronger than is really needed. They do their work easily and willingly, and stand a great amount of hard usage. Built entirely in Canada for the Canadian lumber trade.

Clapboard Machine

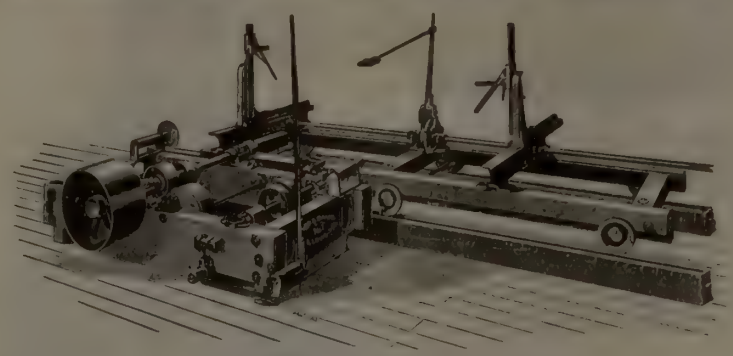
You will need no excuse for the quality of your product if you use the original "Dunbar" Clapboard Machine. Expert in every detail. This machine will give you the very best service under most trying conditions. It will turn out work without delays. It will need practically no repairs and will increase your output. We cannot recommend it too highly because it is giving this very service to lumbermen in all parts of this country.

Send for catalogues of any or all of these machines.

Dunbar Engine & Foundry Co.

WOODSTOCK, N.B.

FISHER & DAVIS MFG. CO. St. Louis, Mo.



Manufacturers of the best quality of

Circular Sawmills and Sawmill Machinery

We specialize on mills of from 5,000 to 40,000 feet capacity.

HAVE YOU OUR CATALOG?

Herman H. Hettler Lumber Co.

Midland, Ontario

Manufacturers of

WHITE PINE and RED PINE

LUMBER and LATH

EXCELLENT PLANING MILL FACILITIES

Special Attention Given to Prompt Delivery

Everything in Spruce

Dressed and in the Rough

Campbell, MacLaurin Lumber Co.

Limited

Board of Trade Building, MONTREAL

Pine, Spruce Hemlock Hardwoods, Lath

GOOD STOCKS PROMPT SHIPMENTS SATISFACTION

C. A. SPENCER, LIMITED

Wholesale Dealers in Rough and Dressed Lumber. Lath and Shingles

Offices—500 McGill Building, MONTREAL, Quebec

EDGINGS

Ontario

The Port Arthur Pulp and Paper Company, Ltd., has been incorporated, with head office at Port Arthur, Ont., and capital stock of $2,000,000. The provisional directors are G. H. Sedgwick, J. Aitchison, D. McArthur, A. T. Struthers, and F. H. Hurley.

The Porcupine Pulp and Lumber Company, Ltd., have been incorporated, with head office at Toronto, Ont., and capital stock of $10,000. The company will operate lumber mills, pulp plants, etc. The solicitors for the company are Thomson, Tilley & Johnston, 85 Bay Street, Toronto.

The building of wooden vessels is developing as an industry in Ontario, as well as in other Canadian provinces. Two vessels are now being built in the Polson Ship Yards, at Toronto, for Norway. They will be launched early this spring and completed in July or August. The company also have on hand a number of smaller vessels, and are expecting several further contracts.

A pulp and paper mill, to cost $1,000,000, will be erected by Mr. S. Marks, Nepigon, Ont., who has been awarded a contract by the Provincial Government for cutting pulpwood on the Black Sturgeon limits. The capacity of the mill will be 150 tons per day. The paper mill will not be erected until later on. The bonus offered by Mr. Marks for the limit was 70c a cord for spruce pulpwood, which brings the price to the government, with the 40c fixed tax, to $1.10 a cord. Mr. Marks also offered 90c a cord for other woods. The limit includes about 1,000 square miles, and is situated some 80 miles from Port Arthur. According to a government estimate, the province will receive from the limit in the neighborhood of $3,500,000.

Eastern Canada

The Whyte-Campbell Lumber Company, Ltd., has been incorporated, with head office at Montreal, P.Q., and capital stock of $40,000, to carry on business as manufacturers of and dealers in lumber, timber, and pulpwood of all kinds.

The new paper mill of the St. Maurice Pulp and Paper Company, Three Rivers, P.Q., has commenced operations, and the first run proved entirely successful. The capacity of the mill will be 100 tons, and the second unit of 50 tons is almost ready for operation. The sulphite mill has already been running for several weeks. The St. Maurice Pulp and Paper Company is a subsidiary of the Union Bag and Paper Company.

A report from St. John, N.B., states that after spirited bidding by Fredericton, Newcastle, Chatham, and Campbellton, the Town of Edmundston has been chosen for a site for the new pulp and paper plant which is to be erected there at an initial cost of $2,000,000 by Fraser, Ltd., whose headquarters are at Fredericton. Edmundston is situated by the St. John River, and offers good transportation facilities. It is within comfortable distance from the woods of New Brunswick, Northern Maine, and Quebec. The Town of Cabano, Quebec, offered a bonus of $50,000, besides tax exemptions, which was refused. Fraser, Ltd., now control ten lumber mills in New Brunswick and Quebec, and the new pulp and paper plant will occupy a central position between them. The Town of Edmundston has agreed to value the new acquistion for taxation purposes at $100,000 for twenty years, and to make other valuable concessions. Work on the new plant will be started in the spring.

Western Canada

John Kaskas, Tofield, Alta., recently lost his planing mill and grist mill by fire. The amount of the loss is $2,500, and there was no insurance.

The Pacific Pole and Pile Company, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $10,000, to carry on business as dealers in poles, piles, timber, etc., and to operate logging camps.

The British Columbia Ship Yards, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $100,000, to carry on the business, among other things, of manufacturers and dealers in timber, lumber, etc.

The Dewar Shingle Company, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $40,000, to carry on business as manufacturers and dealers in timber, lumber, shingles, wood pulp, sawlogs, etc.

The mill at Nanoose Bay, B.C., which has been idle for several years and now belongs to the East Coast Lumber Company, has been reopened. Repairs and improvements have been made, and the plant will be kept running steadily.

The Mankin Lumber Company, Hall, B.C., have sold to Peter Veregin, leader of the Doukhobors at Brilliant, B.C., a tract of timberland near Porto Rico, B.C. It is stated that Verigin will install a plant for the production of poles.

The Echo Shingle Mills, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $10,000, to carry on business as timber and lumber merchants, sawmill proprietors, and dealers in timber and woods of all kinds.

The Masset Inlet Lumber Company, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $20,000, to carry on business as

loggers, millers of lumber, dealers in and manufacturers of timber and lumber of all kinds.

The Stalwart Grain Company, Ltd., has been incorporated, with head office at Winnipeg, Man., and capital stock of $10,000, to carry on business, among other things, as lumber and timber merchants, sawmill proprietors, and dealers in timber and wood of all kinds.

The T. A. Kelley Logging and Lumber Company, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $100,000, to carry on business as manufacturers of lumber and shingles, lumber and timber merchants, timber growers, etc.

T. Meredith, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $100,000, to carry on business as loggers and to operate shingle mills, sash and door factories, and as manufacturers of shingles, lumber, logs, and timber of all kinds.

The Khalsa International Trading Corporation, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $100,000, to carry on business as foresters loggers, lumber and timber merchants, and to operate shingle mills, sawmill, planing mills, wood pulp mills and wood factories of all kinds.

W. H. Gibson, 11432 Seventy-ninth Street, Edmonton, Alta., will commence work soon on the erection of a lumber mill near White Court, Alta., to cost $18,000. The owner will be in the market for two boilers of 100 and 150 h.p., two engines, two high-speed planers; also necessary equipment for electric light plant.

Sealed tenders are being received by the Minister of Lands for British Columbia until March 8, 1917, for the purchase of License X697, to cut 2,355,000 feet of Douglas fir, hemlock, cedar, and white pine on an area adjoining Lot 440, Hemming Bay, Thurlow Island, Range 1, Coast District. Two years will be allowed for the removal of the timber.

W. S. Dwinnell, Minneapolis, and George A. Bergstrom, Everet, Wash., have purchased from Joseph Graur, Eburne, B.C., a site for a shingle mill on the North Arm of the Fraser River, and it is reported that a plant will be erected immediately and ready for operations early this summer. The plant will be electrically driven and of large capacity.

The Pacific Mills, Ltd., Ocean Falls, B.C., who are constructing a paper plant at that point, are now receiving large consignments of machinery from the East, and expect to commence producing paper about April 1. The output at first will be about 100 tons per day. About 1,000 men will be given employment in the plants and camps. The output of the mill has been contracted for, it is reported, for two years ahead.

The Robert Dollar Company expects to have its new mill on Vancouver Bay in operation by the middle of March. The plant is located on Roche Point, West Side North Arm, Burrard Inlet, about six miles from Vancouver, B.C. The mill will have a capacity of 150,000 to 200,000 feet in a ten-hour run. The entire output will probably be exported to the Orient and largely distributed through yards operated by the company.

The Craig-Taylor Lumber Company, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $48,000, to take over the business and property now belonging to the partnership of Craig-Taylor Lumber Company, and to import, export, buy, sell, and prepare for market sawlogs, timber, lumber, and shingles of all kinds. The company have secured a timber limit containing over 100,000,000 feet in Langley, between Otter and the American side, which will furnish them with over ten years' supply of logs. They will erect a sawmill with a capacity of between 50,000 and 60,000 feet per day.

British Columbia Waterborne Exports of Lumber, 1916

	Feet
Australia	2,152,657
New Zealand	286,421
West Coast of South America	627,418
China	3,055,045
Japan	3,042,690
South Sea Islands	991,308
United Kingdom and Continent	19,801,629
Africa	10,114,885
Russia	39,816
Alaska	4,000,000
	44,111,869

The annual meeting of the Hardwood Manufacturers' Association of the United States was held at Cincinnati, Ohio, on January 30 and 31st.

Premier H. C. Brewster of British Columbia, in a communication to the Canadian Forestry Association recently stated that it is the intention of the new government to abolish the evils of the patronage system wherever these have been in evidence, and that the Forestry Service will, in no sense, be an exception to this rule.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
1 x 6 in. 10/16 ft. merchantable	29 M
1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

The McLennan Lumber Co.
LIMITED
Wholesale and Retail
21 Dorchester Street W. — MONTREAL, QUE.
Telephone Main 8656. Private exchange to all departments

H. BOURGOUIN
Dominion Express Bldg., 146 St. James St., Montreal
WHOLESALE LUMBER AND TIMBER
Dressed and Rough
White and Red Pine, Spruce, Hemlock, Banksian Pine, Birch, Maple, Dimension Cedar, B. C. Fir, Yellow Pine, Railway Ties, Fence Posts, etc.
Prompt shipment. Satisfactory stock. Good service Write for Prices.
A. F. B. AUSTIN, Manager

Your Blower System

If you contemplate installation of a new blower system or an extension of your present one, write us, as we have a unique proposition to offer. There is no heating, clogging or shaking with our system.

Prices on application

The Toronto Blower Co.
156 Duke St., Toronto

When Buying Shoepacks and River Boots

Do not be misled by inferior goods

The

"PENETANG" SHOEPACK

is the STANDARD drawstring pack

PRICES AND CATALOGUE ON APPLICATION

The

Gendron Penetang Shoepack Manufacturing Company

PENETANGUISHENE, ONT.

Sample No. 5
Sporting

Sample No. 20
Cruising

A rigid little craft with a powerful sturdy engine.

Adams Pointers

Adams Pointers are now used by the leading lumber manufacturers and driving companies throughout the Dominion. They offer advantages which every lumberman should enjoy.

They do the work of alligators and tugs at less than half the expense.

WRITE FOR CATALOGUE AND BLUE PRINTS

Adams Engine Co., Penetang, Ont.

J. T. PAYETTE, Proprietor

Ryther Multiple Saw Slasher

The paper market is waiting for your pulpwood.

This Multiple Saw Slasher cuts over 1000 logs an hour into uniform lengths. Cost of maintenance and running expense very low.

Send for Catalogue

Used in Canada by

ANGLO-NEWFOUNDLAND DEVELOPMENT COMPANY
ABITIBI POWER & PAPER COMPANY

Both of the above concerns have within the last three months ordered duplicates of equipment furnished them several years ago.

Laurentide Company—Grand Mere, P.Q.
Belgo Canadian Pulp and Paper Company—Shawinigan Falls, P.Q.
Donnacona Paper Company—Donnacona, P.Q.
Spanish River Pulp and Paper Mills, Spanish River, Ont.
Spanish River Pulp and Paper Mills, Sturgeon Falls, Ont.
North Shore Power, Railway and Navigation Company, Clarke City, P.Q.
Price Brothers Company—Kenogami, P.Q.
Chicoutimi Pulp Company—Chicoutimi, P.Q.

Barienger Braking Device

This wonderful machine brings larger loads down steep grades with absolute safety. Saves cost of sand and straw hilling in upland logging operations. Takes the short cut with heavy loads and saves time.

Send for photographs and catalogue today.

List of Canadian users

J. H. Macdonald Lumber Company—Blind River, Ont.
Hope Lumber Company—Blind River, Ont.
Gillies Brothers—Braeside, Ont.
The James Maclaren Company—Buckingham, P.Q. (3)
W. C. Edwards Company—Maniwaki, P.Q. (2)
Manley Chew—Midland, Ont. (2)
St. Maurice Lumber Company—Gaspe Harbour, P.Q. (2)
John Fenderson & Son, Sayabec, P.Q.
Graves, Bigwood & Co.—Byng Inlet, Ont.
Victoria Harbour Lumber Company—Blind River, Ont.
Eddy & Glynn—Sault Ste. Marie, Ont.
Price Brothers Company—Jonquiere, P.Q.
Colonial Lumber Company—Pembroke, Ont.

RYTHER & PRINGLE COMPANY

Carthage, N. Y.

No. 25 American Blue Book—240 Pages

Saw and Knife Fitting Machinery and Tools

This new catalogue is very much the most complete in its showing of Saw and Knife Fitting Machinery and Tools, that has ever been published and shows the manufacture of the three factories for which this company acts as distributor, viz.:

Baldwin, Tuthill & Bolton. Covel Manufacturing Company. Hanchett Swage Works.

All catalogues and price lists heretofore published and distributed, relating to these lines, should be destroyed or abandoned immediately. This new general catalogue contains equipment for all purposes, the very best in type, adaptation and efficiency, and possessing the greatest popularity.

Correspondence invited.

Machinery Company of America

American Saw and Knife Fitting Machinery and Tools

Cable Address
"BALCOHAN", Grand Rapids

Codes Used
Liebers and Western Union

General Office 505 Sixth Street

GRAND RAPIDS, MICH., U.S.A.

Factories at
Benton Harbor, Big Rapids, Grand Rapids

Distributors for

Baldwin, Tuthill & Bolton Hanchett Swage Works Covel Manufacturing Company

Saw Anvils, Brazing Clamps, Brazing Compound, Filers, Filing Clamps, Forges, Gummers, Hammers, Lap Cutters, Lap Grinders, Levelling Blocks, Pulleys, Retoothers, Setters, Shapers, Sharpeners, Solder, Straight Edges, Stretchers, Swages, Tension Gauges, Tools.

BANDWHEEL, CUTTER and TOOL Grinders. KNIFE Grinders and Balances.

A Complete Line of Automatic Rip and Cross-cut Circular Saw Sharpeners

for saws from 3 to 96-in. diameter, in all types used on wood or metal sawing. Let us recommend and quote you.

Here We Are Again

with the Genuine

Draw String Shoe Pack

Orders from lumbermen all over Canada for the Midland-Gendron Pack keep our plant going day and night. These packs are made of the best selected leather manufactured specially for this purpose.

THE P.T. GENDRON SHOE PACK CO. MIDLAND GENDRON MIDLAND ONT. CAN.

Our Catalogue will be sent on request.

P. T. Gendron Shoe Pack Co.

MIDLAND, ONTARIO

KLIM

SPELL IT BACKWARD
PURE SEPARATED MILK
IN POWDER FORM
FOR ALL USES
WHERE MILK IS NEEDED

Always Ready

One of the outstanding features of KLIM is that it is always ready for instant use by the addition of water. It will keep indefinitely, is light for transport, and is much cheaper than liquid or condensed milk.

The Lumberman's Milk

For the lumber camp there is nothing to equal KLIM. It has the flavor and nourishment of fresh milk—it really is nothing but pure separated milk made into powder. Your men will like KLIM—so will your cooks. Packed in 10 lb. tins, six in a case, costing $12.00 per case. A pound makes a gallon.

Your wholesale grocer has it

CANADIAN MILK PRODUCTS
LIMITED

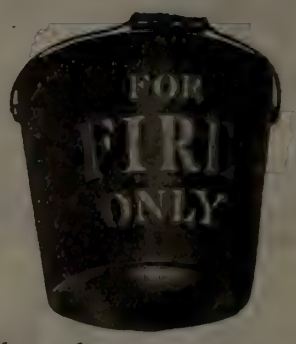
10-12 William Street - TORONTO

Montreal Office: 508 New Birks Building

Plants in Ontario: Brownsville, Belmont, Burford, Hickson.
W. H. Escott Company, Limited, Winnipeg, Regina, Calgary, Edmonton.
Kirkland & Rose, Vancouver, B.C.

The Lumberman's Milk

A Mill Necessity
For Fire Prevention



Will not become watersoaked

The first five minutes of any fire is when you need to be right on the job with a few pails of water—quick! Have a number of Eddy's Fibre Pails handy all the time and keep them filled. In an emergency they will save you thousands of dollars fire loss. A "Safety First" idea of this kind is not an expense. It is a necessary investment that may net you many thousand per cent. at any time. Better put in a battery of Eddy's Fibre Pails now rather than wish you had, when you behold your mill a pile of ashes and twisted machinery.

Our Fibre Pails are made of Fibreware, moulded and hardened under enormous hydraulic pressure and baked at extreme heat. These pails give you almost everlasting wear.

By a judicious arrangement of a series of our Fire Pails you should be able to get a much lower insurance rate on your Factory or Mill. Nothing can be more efficacious in case of fire than a few of our Fire Pails at the place before the fire spreads.

These pails are made with a specially rounded bottom so that they must be stood or hung in racks provided for the purpose, where everybody in the Factory or Mill knows where to find them when wanted.

WRITE FOR PRICES AND DETAILS.

The E. B. Eddy Co.

Limited

HULL - CANADA

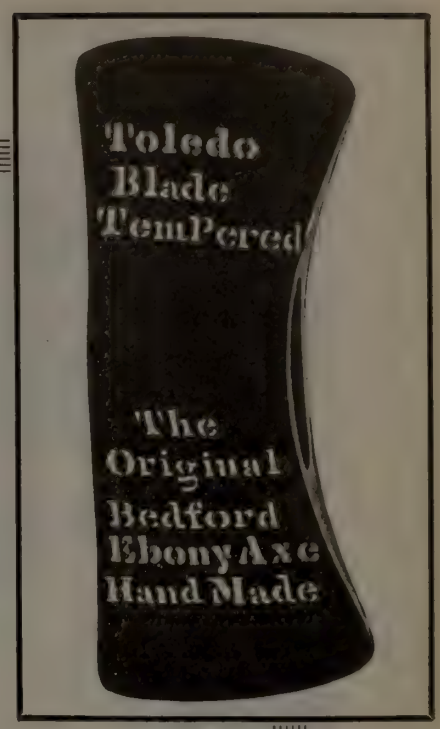
TORONTO BRANCH—73-75 Wellington Street, West

Always everywhere in Canada ask for EDDY'S MATCHES.

BEDFORD Ebony Axe

Hand Made for

LUMBERMEN



Bedford Axes are much more than just ordinary axes. They are evenly balanced with the weight placed where it is of most value.

The steel used is a real triumph in metallurgy. It is capable of taking a keen cutting edge. Because of the tough steel this edge is retained for a surprisingly long time.

Our Bedford Ebony Axe is a special hand forged tool made specially for lumbermen. Being hand-made the original temper of the special steel is not altered.

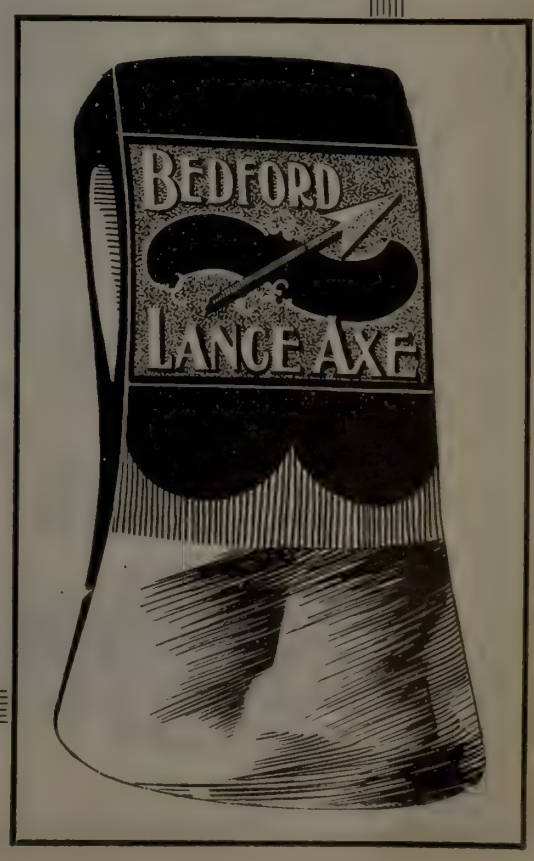
We shall be glad to furnish you with prices on the Ebony and other axes. Write us.

The BEDFORD Manufacturing Co. BEDFORD, QUE.

Incorporated 1895

Manufacturers of

Axes, Scythes, Rakes, Hoes, Forks, Saws, Etc.



How Is *Your* Work Going?

"Sit down, Thompson; how's the work going?"

"It isn't going—it's ***dragging.***"

"What's the matter—men sore?"

"No! There's no complaint. Grub is good; men seem willing enough—but they don't put their heart into the work."

"Say, Thompson, why don't you get real beds for the men, ***like the one I'm sitting on?***"

"Holy mackerel! I ain't running a Ritz-Carlton Hotel at my camp."

"I don't mean brass beds and Ostermoor mattresses; I mean sanitary steel bunks ***with real springs***. They will be money in your pocket."

"You mean money ***out*** of my pocket."

"No, sir! The trouble with your men is lack of rest. They don't get a good night's rest on those hard, wooden bunks of yours that can't possibly be kept free from vermin; they can't do a day's work. Those old bunks are costing you a pile of money, because they are keeping the men from doing their best work.

"Tell you what, Thompson, rip out the old wooden shelves that your men are trying to sleep on—put in ***'Alaska' Sanitary Steel Bunks***—and you'll find that your men will turn out about 25% more work. I proved it myself, and so did Miller." (***So have many others.***)

Alaska Sanitary Steel Bunks Cost More, But are the Cheapest in the End.
It's Not Too Late to Equip *Your* Camp With Them. May We Quote You?

The Parkhill Manufacturing Co., Limited

MONTREAL — WINNIPEG
GUARANTEED ALASKA BEDDING
TRADE MARK REGISTERED

Successors to
THE ALASKA FEATHER & DOWN CO., LIMITED
Makers of Steel Bunks, Bedsteads and Bedding
400 St. Ambroise St. :-: MONTREAL
"ALASKA on an article means HIGH-GRADE EVERY PARTICLE"

Canadian Lumbermen and Woodworkers

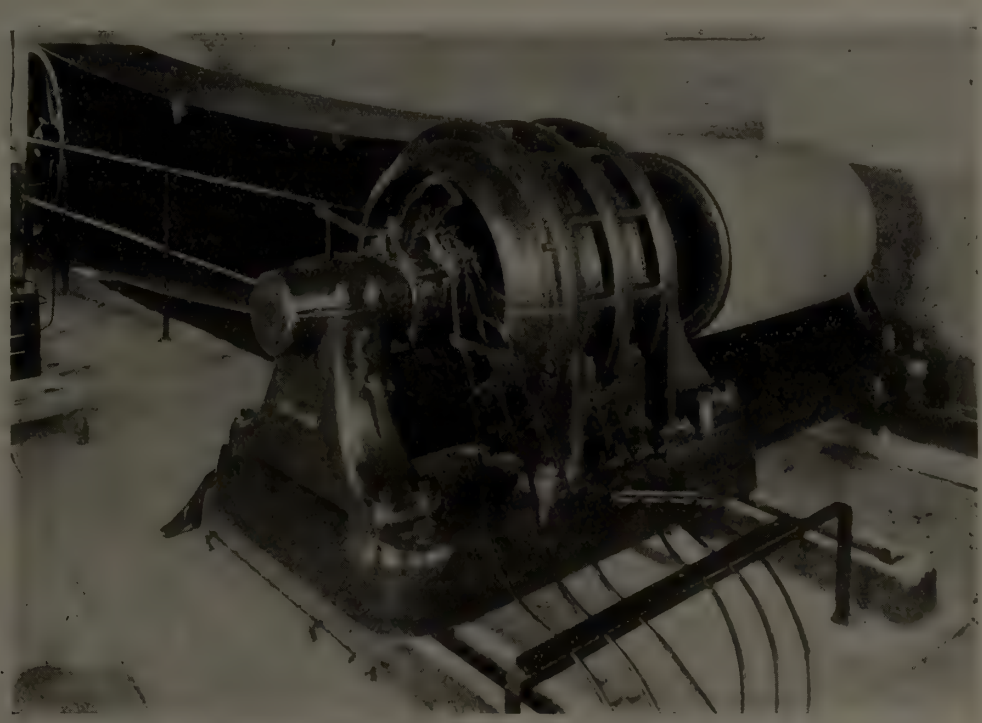
Do you belt your machinery according to *Tradition* or according to *Science?*

Every inch of

LEVIATHAN and ANACONDA BELTING

is made to a uniform standard determined by a scientific study of the work a belt has to perform. We have been since 1881 finding out just how the strength in a belt should be distributed to give it proper balance; the proper elasticity without stretch; the proper crosswise strength to hold fasteners and avoid joint trouble.

Our Belts are strengthened before they leave our factories, and not after they are put on your pulleys.



This illustration shows a LEVIATHAN BELT, 75 ft. x 48 in. x 10-ply attached to a motor of 500 H.P., 3-phase, 60 cycle, 2300 volts, 600 r.p.m. This belt has been carrying a load of about 600 H.P. since 1914.

Over one million Leviathan and Anaconda Belts have been placed on the pulleys of the industries of this continent.

Main Belting Co. of Canada, Limited

MONTREAL
10 1-2 St. Peter Street

EDMONTON and CALGARY
Gorman, Clancey & Grindley

WINNIPEG
W. H. Hicks, 567 Banning St.

TORONTO
32 Front Street West

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

Power at Par

KEYSTONE
SPLIT STEEL
PULLEYS

We have just received a carload of these "power saving" pulleys, and can give you prompt shipment from stock—any size from 6 in. to 60 in. diameter.

Their advantages:—

They require no setscrews, no key-ways.

By simply changing bushing they may be used on many different-sized shafts.

Combine exceptional strength with extreme lightness.

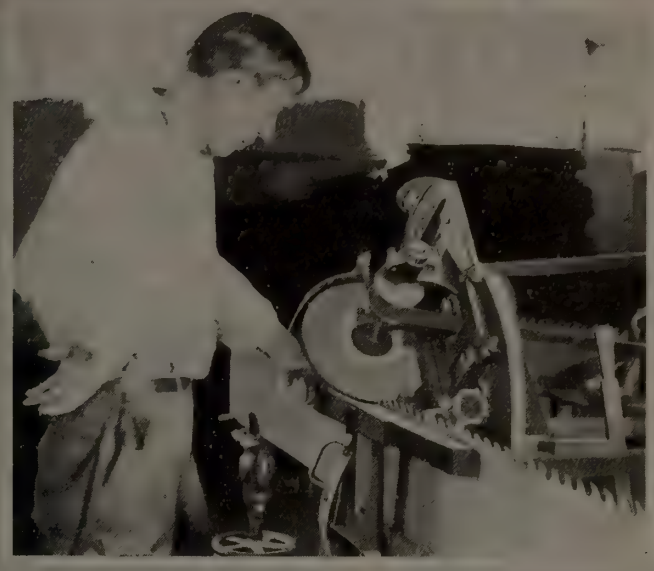
Rim is beadless—moisture and sawdust cannot collect.

Grooveless, oval face gives perfect belt grip with minimum belt tension.

If you are making plant additions or installing new equipment where a good, easily-attached, dependable pulley is required, Keystone Pulleys will fill the bill.

We use them in our own shops and know they are all right.

The Waterous Engine Works
Company, Limited
BRANTFORD, ONTARIO



And Don't Overlook the *Economy* of Using Aloxite Saw Gumming Wheels

EVEN when you have fully appreciated the clean, cool, fast cutting qualities of Aloxite Wheels there is still another point to consider and that is their *economy*. They save because they cut so fast and clean, doing more work in less time and requiring less attention or dressing. They save because they show long life holding their shape.

Aloxite is the ideal steel grinding abrasive

THE CARBORUNDUM COMPANY
NIAGARA FALLS, N. Y.

New York Chicago Philadelphia Cleveland Cincinnati Pittsburgh Boston Milwaukee Grand Rapids

TO INVESTORS

THOSE WHO, FROM TIME TO TIME, HAVE FUNDS REQUIRING INVESTMENT MAY PURCHASE AT PAR

DOMINION OF CANADA DEBENTURE STOCK

IN SUMS OF **$500** OR ANY MULTIPLE THEREOF.

Principal repayable 1st October, 1919.

Interest payable half-yearly, 1st April and 1st October by cheque (free of exchange at any chartered Bank in Canada) at the rate of five per cent per annum from the date of purchase.

Holders of this stock will have the privilege of surrendering at par and accrued interest, as the equivalent of cash, in payment of any allotment made under any future war loan issue in Canada other than an issue of Treasury Bills or other like short date security.

Proceeds of this stock are for war purposes only.

A commission of one-quarter of one per cent will be allowed to recognized bond and stock brokers on allotments made in respect of applications for this stock which bear their stamp.

For application forms apply to the Deputy Minister of Finance, Ottawa.

DEPARTMENT OF FINANCE, OTTAWA,
OCTOBER 7th, 1916.

McLennan's Lath Mill and Bolter

Utilize your unsaleable lumber with a lath mill.

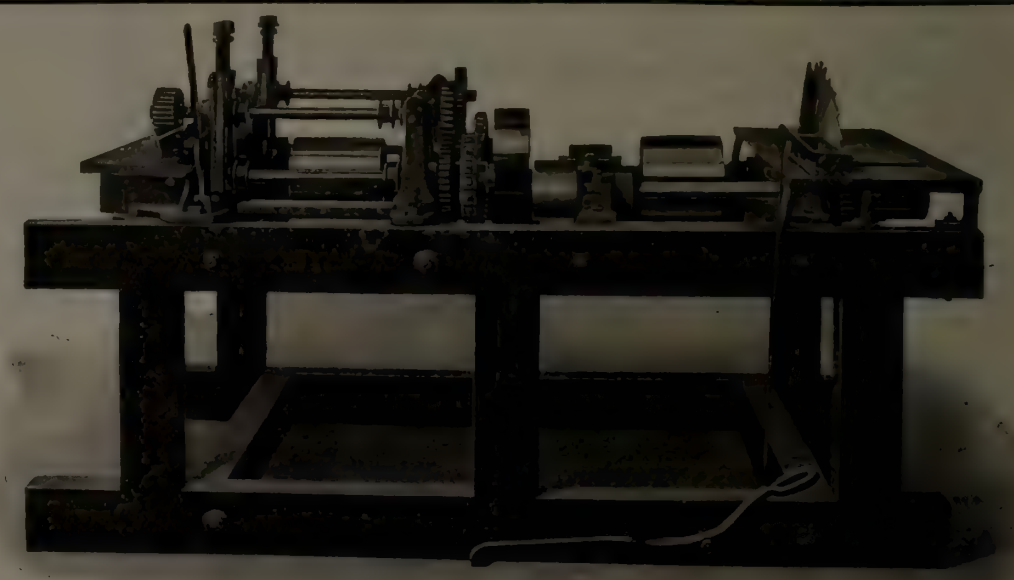
This lath mill and bolter is designed along simple lines with bolted wooden frame, making it inexpensive and substantial.

Capacity 45,000.

Specifications; Lath machine pulley 7 inches diameter x 9 inches face.

Floor space 7 feet 6 inches x 3 feet 6 inches.

We make gang edgers, shingle machines, sleeper machines and barkers, etc.



McLennan Foundry & Machine Works

CAMPBELLTON, N.B. Limited

The Only Loose Pulley

L. A. DeLAPLANTE LIMITED

LUMBER

DOORS SASH AND INTERIOR TRIM

PRIVATE PHONE EXCHANGE

MAIN ST.

East Toronto, June 17/16

Chapman Double Ball Bearing P/P

Dear Sirs

In regard to double ball bearings supplied by you, we find those on line shaft giving entire satisfaction and find them quite a saving on power, as for the ball bearing loose pulley, they are decidedly the finest, and only satisfactory loose pulley we have ever had, no noise or slipping and consequently no loss of time, which so frequently occurs with the ordinary bush pulley, we have run the loose pulley on our big matcher for nearly two years and consider it a severe test and it runs as nice to day as the first day we used it can recommend your bearings and pulleys, to any one in the manufacturing business especially planing mill work which we have proved.

Yours very truly

L. A. DeLaplante Limited

per W. Costain Supt.

Chapman Double Ball Bearings

have been installed in over 3000 factories of all classes during the past fifteen years, and the above letter is one of many of a similar import, bearing testimony to the efficiency, long life, and cleanliness of the bearing. Some of these have been compiled in a booklet, "Results", which we will be pleased to send on request.

Chapman Double Ball Bearing Co., Ltd.

337-351 Sorauren Avenue, TORONTO

Transmission Ball Bearing Co., Inc., 1050 Military Road, Buffalo, N. Y.

Henry Disston & Sons' Saw Steel Plant—The Greatest in the World

This imposing mill—larger than any two others combined—comprises but about a fourth of the entire Disston Plant.

HENRY DISSTON & SONS, Inc. - 2-20 Fraser Ave., TORONTO

Rails
Yard Locomotives
Logging Cars
Flat Cars

NEW AND SECOND HAND

John J. Gartshore

58 Front Street West *TORONTO, ONT.*

Utilization of Waste Wood

We have a wide experience in the design and construction of complete plants for the economical commercial using of waste woods

Plants Proved in Operation:

DISTILLATION PLANTS: Slabs, Limbs, etc.
ALCOHOL PLANTS: Sawdust, Shavings, etc.
PULP MILL EQUIPMENT: Soda, etc.
OXALIC ACID PLANTS: Sawdust, etc.
WASTE SULPHITE LIQUOR FERMENTING PLANTS: Alcohol

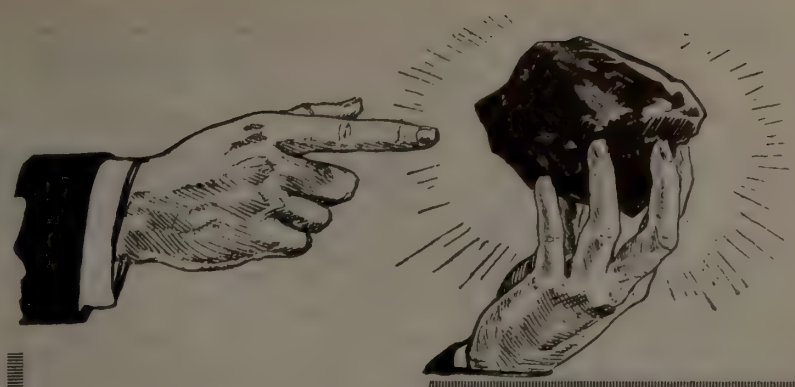
"The Plants With Reputations"

Send us your enquiries, we will give you our best services by return

BLAIR, CAMPBELL & McLEAN

GLASGOW, SCOTLAND LIMITED

Est. 1838. Cables: "Blazon, Glasgow". Code: ABC—5th



This Pound of Coal

is Capable of Sustaining a Horse-power for nearly an hour.

Every pound of coal contains a definite amount of potential energy—combustion liberates it in the form of heat energy—eventually, mechanical motion. Even in passenger locomotive service (notoriously wasteful in energy transmission) a pound of coal will develop a horse-power for 20 or 25 minutes. With this in mind imagine an installation of the

Morehead Back to Boiler SYSTEM

saving, daily, from 2,000 to 30,000 pounds of coal—paying for itself in a few months' time.

This is the experience of hundreds of woodworking plants using steam for heating and drying purposes.

The Morehead System keeps steam-heated equipment absolutely free of condensation—returning under pressure the chemically pure hot condensation to the boilers as feed water.

Ask for particulars applying to your individual requirements. Our experts will be glad to work with you on any job you have which involves the use of steam in any way.

Canadian Morehead Mfg. Company

WOODSTOCK, ONTARIO

128,350 Laths

In Ten Hours

Our Lath-Mill and Bolter have made a test cut in ten hours of 128,350 four foot laths, 1½ in. by ⅜ in., counted, tied and piled.

We also make a full line of Lath-Mill and Picket-Mill Machinery for mills, both large and small.

A Few of the "400" who use Payette's Lath-Machinery:

Graves, Bigwood Co., Byng Inlet, Ont.
Victoria Harbor Lumber Co., Victoria Harbor, Ont.
Georgian Bay Lumber Co., Waubaushene, Ont.
Colonial Lumber Co., Pembroke, Ont.
Theo. A. Burrows, Grand View, Man.
Wm. Milne & Sons, North Bay, Ont.
C. Beck Mfg. Co., Penetanguishene, Ont.
Manley Chew, Esq., Midland, Ont.
Chew Brothers, Midland, Ont.
James Playfair Co., Midland, Ont.

P. Payette & Company,

Engineers and Machinists ***PENETANGUISHENE, ONT.***

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing	35 00	36 00
1 x 12 common and dressing	38 00	40 00
1 x 10 and 12 mill cull stocks.	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	37 00
1 x 8 box and common		28 00
1 x 10 inch box and common.		30 00
1 x 12 inch box and common.		31 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	28 00	29 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill run 1-in. and 2-in.		27 00
Spruce mill culls		23 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft.		20 00
1 x 6-in. x 9 to 16 ft.		25 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		26 00
2 x 4 to 12 in., 12 and 14 ft.		25 00
2 x 4 to 12-in., 18 ft.		28 00
2 x 4 to 12-in., 20 ft.		30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear, in B. C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		35 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		36 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		36 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		37 00
10x20, 18x20, up to 32 ft.		37 50
6x18, 8x18, up to 32 ft.		37 50
6x20, 8x20, up to 32 ft.		38 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain		35 00
Fir flooring, 1 x 4, edge grain		38 50
Fir flooring, 1 x 4, flat grain		30 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1 4-ft. pine lath		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath		4 25
1½-in. mill run hemlock lath		4 00
XX B. C. cedar shingles		2 60
XXX 6 butts to 2-in.		3 45
XXXXX		3 85

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	40 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1st and 2nds, 4/4	44 00
Birch, No. 1 com. and bet., 4/4	35 00
Birch, 1st and 2nds, 6/4 and 8/4	46 00
Birch, 1st and 2nds, 10/4 and 12/4.	60 00
Birch, 1st and 2nds, 16/4	62 00
Basswood, 1sts and 2nds, 4/4	48 00
Basswood, No. 1 com. and bet., 4/4.	35 00
Basswood, No. 2 and 3, common	21 00
Basswood, 6/4 and 8/4, 1sts and 2nds.	48 00
Basswood, 6/4 and 8/4, com. and bet.	40 00
Basswood, 4/4, No. 2 com. and bet.	34 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft Elm, No. 1 com. and bet., 4/4	35 00
Soft elm, No. 2 and 3 common	19 00
Soft elm, 6/4 and 8/4, 1 and 2	45 00
Rock elm, 1sts and 2nds, 6/4 x 8/4.	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	40 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1st and 2nds, 4/4	40 00
Hard Maple, common and better, 4/4	33 00
Hard maple, 12/4 & 16/4, 1sts and 2nds	50 00
Red oak, plain, 1st and 2nds, 4/4	62 00
Red oak, plain, No. 1 co., 4/4	43 00
Red oak, plain No. 2 com. 4/4.	32 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	68 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1sts and 2nds, 4/4	62 00
White oak, plain, No. 1 com., 4/4	42 00
White oak, plain, No. 2 com., 4/4	32 00
Red and White oak, plain, 1sts, and 2nds, 5/4 and 6/4	60 00
Red and White oak, plain, No. 1 com. 5/4 and 6/4	45 00
Red and White oak, plain, No. 2 com. 5/4 and 6/4	35 00
Red and White oak, plain, 1sts and 2nds, 8/4	70 00
Red and White oak, plain, No. 1 com. 8/4	50 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	89 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	92 00
White oak, ¼ cut No. 1 common	57 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	33 00	35 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	24 00	26 00
Pine, 1-in. x 4-in. s.c. strips		30 00
Pine, 1-in. x 5-in. s.c. strips		31 00
Pine, 1-in. x 6-in. s.c. strips		32 00
Pine, 1-in. x 7-in. s.c. strips		30 00
Pine, 1 x 8 in. s.c., 12 ft. to 16 ft.		32 00
Pine, 1-in. x 10-in. M. R.		36 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
Pine, s.c. strips 1¼, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in.	24 00	26 00
Pine, s.c. and bet. shorts, 1 x 5		24 00
Pine, s.c. and bet., shorts, 1 x 6		26 00
Pine, s.c. shorts, 6'-11', 1"x10"		30 00
Pine, box boards:		
1"x4" and up, 6'-11'		24 00
1"x3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	22 00	24 00
Pine, mill culls stock, 1 x 12		26 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		21 00
O. culls r & w p	14 00	15 00
Red pine, log run:		
mill culls out, 1-in.	20 00	22 00
mill culls out, 1¼-in.	21 00	23 00
mill culls out, 1½-in.	21 00	23 00
mill culls out, 2-in.	23 00	25 00
mill culls, white pine, 1"x7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	24 00	26 00
1"x9"-10" and up, 12'-16'	25 00	27 00
1¼"x7" 8-9" and up, 12'-16'	25 00	27 00
1¼"x10" and up, 12'-16'	25 00	27 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1¾-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Wmite Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	18 00	18 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine. Common and Better

1 x 6 and 8 in.	$56 00
1 in., 8 in. and up wide	65 00
1¼ and 1½ in. and up wide	67 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	52 00
6/4 x 8 and up No. 1 and better	63 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	54 00
8/4 x 6 and up No. 2 and better	56 00
6/4 x 6 and up No. 3 and better	48 00
8/4 x 6 and up No. 3 and better	52 00
No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1¼ in., 8 in. and up wide	59 00
1½ in., 8 in. and up wide	59 00
2 in., 8 in. and up wide	62 00
2½ and 3, 8 in. and up wide	75 00
4 in., 8 in. and up wide	85 00
No. 2 Cuts	
1 in., 6 in. and up wide	34 00
1¼ in., 6 in. and up wide	47 00
1½ in., 6 in. and up wide	47 00
2 in., 6 in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	45 00 48 00
Common and Dressing Mill Run	
1-in. x 4-in.	29 00
1-in. x 5-in.	29 00
1-in. x 6-in.	30 00
1-in. x 8-in.	31 00
1-in. x 10-in.	33 00
1-in. x 12-in.	35 00
1 in. x 13 in. and up	35 00
1¼, 1½ and 2 in.	32 00
No. 1 Barn	
1 inch	34 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	30 00 36 00
1¼, 1½ and 2-in.	32 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	29 00 33 00
No. 1, 1, 1¼, 1½, 2-in.	29 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	24 00 27 00
No. 2, 1¼, 1½, 2-in.	24 00
Mill Culls	
Mill run culls, 1-in.	23 00
1, 1¼, 1½ and 2-in.	24 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 85
No. 2, 48-in. pine	4 60
No. 1, 48-in. pine	5 00
No. 3, 48-in. pine	4 15
Hemlock Lath 48 in.	4 15

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension.	S. 1 S. and 1 E.			
	6 ft.	8 ft.	10 ft.	14 & 16 ft.
2 x 4, 6, 8	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.

2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 4-6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12; 8-16 ft.	28 50
2 x 10 and 2 x 12; 18, 20, 22 ft.	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50
No. 1 Common Boards.	
4 inch	23 00
6 inch	25 50
8, 10, 12 inch	27 50
Mixed widths	26 50
Flooring.	
4 or 6 inch No. 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	26 00
Shiplap—Finished.	
6 inch	24 00
8, 10 and 12 inch	25 00
Siding.	
6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00
Lath.	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed)	4 50

PINE—ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 10
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft.	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft.	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft.	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft.	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft.	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft.	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	41 00
Nos. 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	38 00
Nos. 1 and 2, 1 x 4 in., or 6 in., F. G.	32 00
No. 3, 1 x 4 in. or 6 in.	29 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ⅜ x 1½ in. x 4 ft.	5 00

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White Pine

Wholesale Selling Price

Uppers 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
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Dressing 5/4 x 10	52 00
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No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00

(Continued on page 80)

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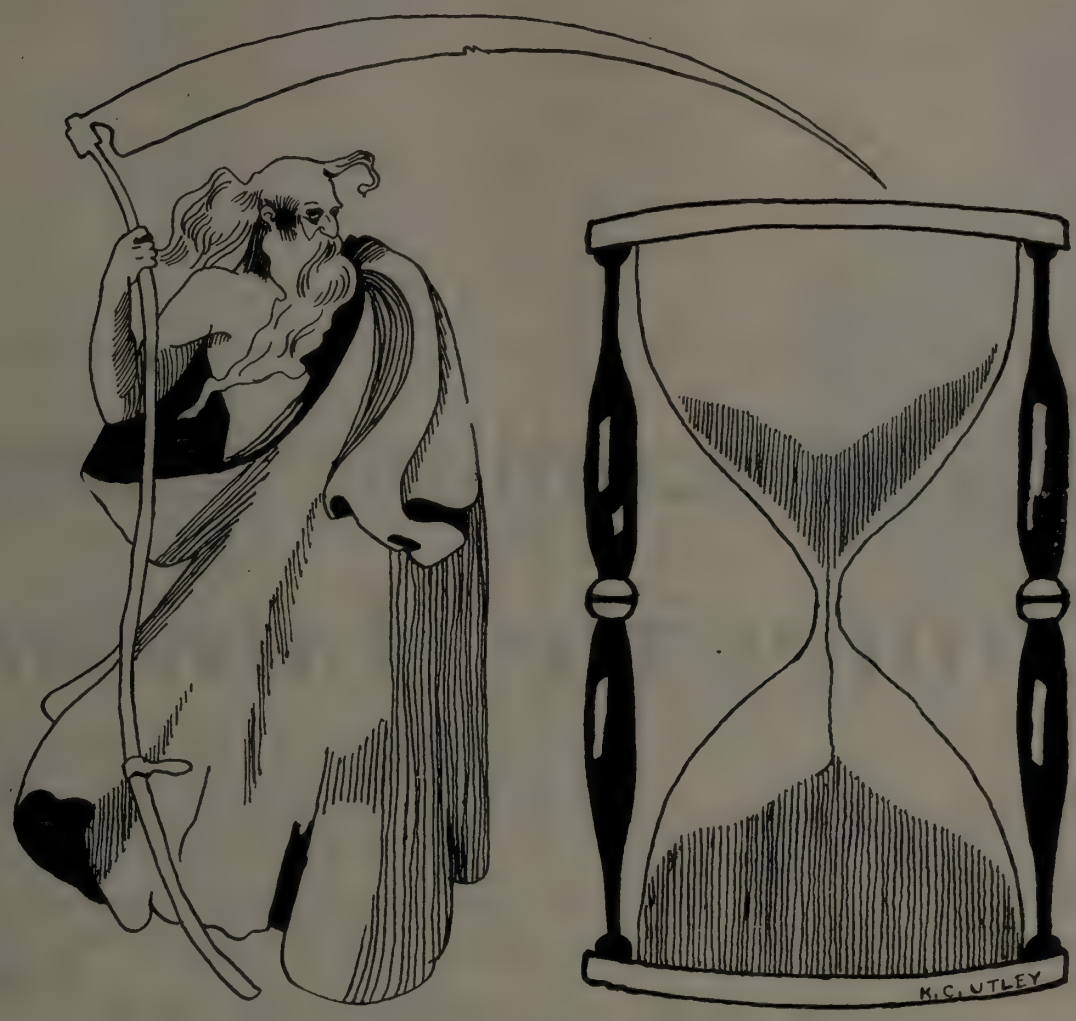

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No. 1 Moulding 8/4	62 00
No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	34 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	34 - 35	21 - 23	13 - 15
5/4 to 8/4	37 - 38	24 - 25	14 - 15
10/4 to 16/4	43 - 45	31 - 33	20 - 22

RED BIRCH

4/4	45 - 47	28 - 30	14 - 16
5/4 to 8/4	46 - 48	30 - 32	16 - 18

SAP BIRCH

4/4	41 - 43	28 - 30	18 - 20
5/4 and up	41 - 43	28 - 30	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	34 - 36	23 - 25	15 - 17
Thicker	34 - 36	25 - 28	18 - 19

PLAIN OAK

4/4	50 - 52	31 - 33	19 - 21
5/4 to 8/4	52 - 54	33 - 35	21 - 23

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	51 - 53	28 - 30	18 - 20
10/4 and up	64 - 66	40 - 42	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in...	98 00
Selects, 1 to 2 in.	88 00
Fine common, 1 in.	68 00 70 00
Fine common, 1¼ to 2 in.	72 00 74 00
No. 1 Cuts 1 in.	55 00
No. 1 Cuts 1¼ to 2 in.	60 00 64 00
No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1¼ to 2 in.	48 00 50 00
Barn Boards, No. 1, 1 x 12	48 00 50 00
No. 1, 1 x 10	38 00 40 00
No. 1, 1 x 8	37 00 38 00
No. 2, 1 x 12	38 00 40 00
No. 2, 1 x 10	37 00
No. 2, 1 x 8	35 00
No. 3, 1 x 12	31 00 32 00
No. 3, 1 x 10	30 00 31 50
No. 3, 1 x 8	30 00 31 00
Canadian spruce boards	25 00 27 00
Spruce, 10 in. dimension	28 00 30 00
Spruce, 12 in. dimension	29 00 31 00
Spruce, 9 in.	29 00
Spruce, 8 in. and under dimen.	28 00
10 and 12 in. random lengths, 10 ft. and up	29 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00 24 00
All other random lengths, 7-in. and under, 10 ft. and up	21 00 22 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	22 50 23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	22 00
1½-in. spruce laths	4 25
1¼-in. spruce laths	3 80 4 00

New Brunswick Cedar Shingles

Extras	3 50	3 60
Clears		3 30
Second clears	2 30	2 40
Clear whites	2 00	2 20
Extra 1s (Clear whites in)		1 60
Extra 1s (Clear whites out)		1 50
Red Cedar Extras, 16-in. 5 butts to 2-in.		4 00
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Clear Perfections, 5 butts to 2¼		4 80
Washington 16-in. 5 butts to 2-in extra red clear		3 65

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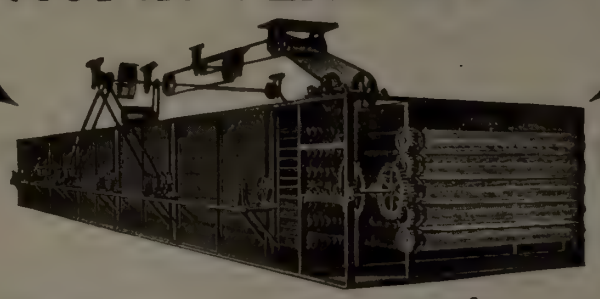

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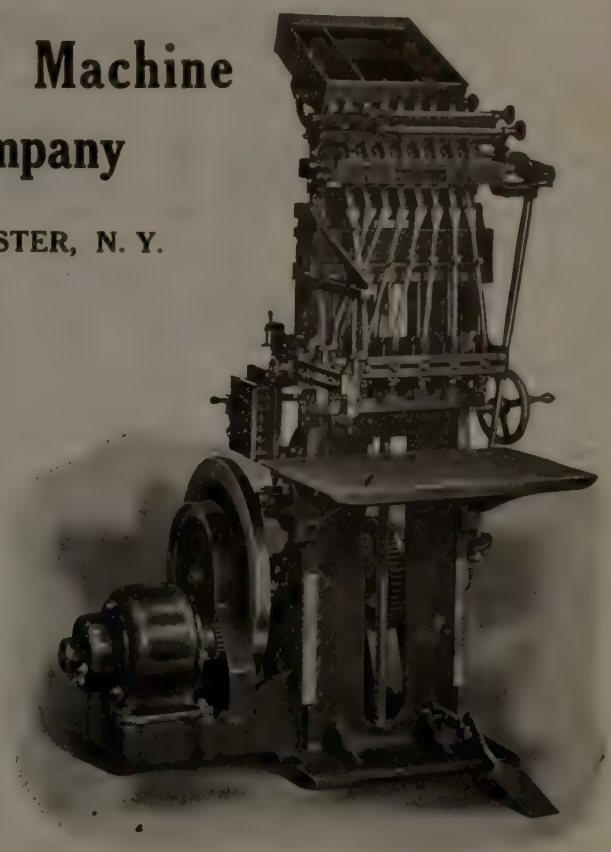

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Morgan Machine Company

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Canada's Banner Province

Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

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Pulpwood,	246,282 cords.
Railway Ties,	5,704,459.

Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

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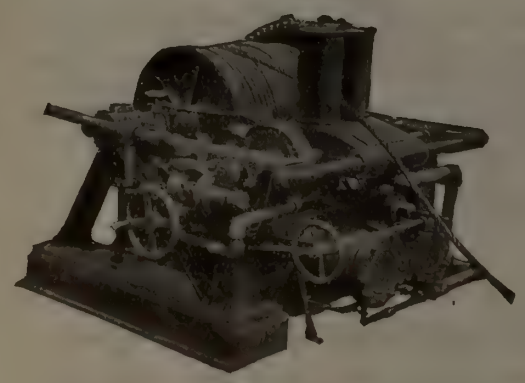

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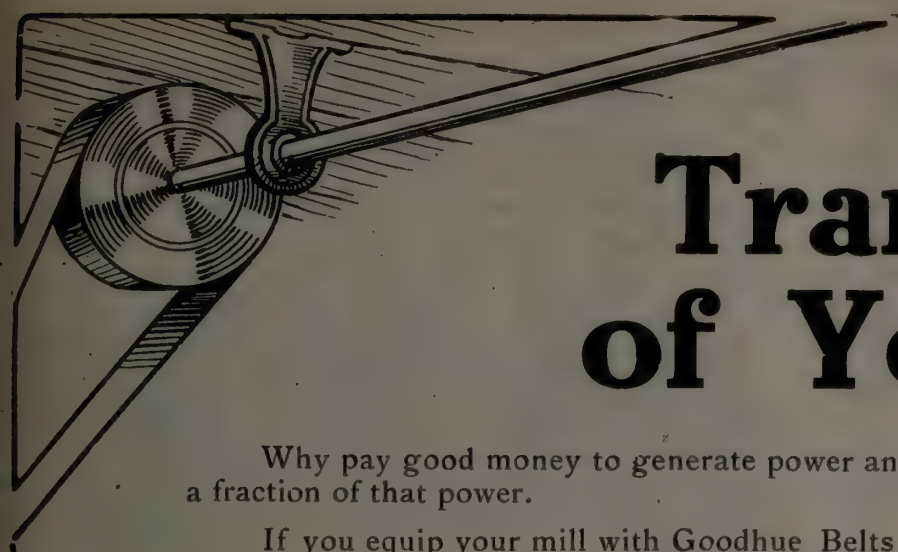

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Heeney, Percy E.
Iowa Lumber & Shingle Company
Long Lumber Company
Mason, Gordon & Company
Muir, Kirkpatrick & Sharpe
Pauze, Wilfrid H.
Shawnigan Lake Lumber Co. Ltd.
Terry & Gordon
Timberland Lumber Company
Timms, Phillips & Company
Vancouver Lumber Company

DUST COLLECTORS
Canadian Blower & Forge Company
Sheldons Limited
Toronto Blower Company

ELEVATING AND CONVEYING MACHINERY
Canadian Link-Belt Company, Ltd.
Jeffrey Manufacturing Company
Waterous Engine Works Company

EMERY GRINDERS
Carborundum Company
Waterous Engine Works Company

ENGINES
Canadian Blower & Forge Company
Hamilton Company, William
Jenckes Machine Company
Waterous Engine Works Company

EXHAUST FANS
Canadian Blower & Forge Company
Sheldons Limited
Toronto Blower Company

EXHAUST SYSTEMS
Canadian Blower & Forge Company
Sheldons Limited
Toronto Blower Company

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Campbell Flour Mills

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Nicholson File Company
Simonds Canada Saw Company

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Elk Fire Brick Company of Canada
Waterous Engine Works Co.

FIRE FIGHTING APPARATUS
Eddy Company, E. B.
Waterous Engine Works Company

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Campbell Flour Mills

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Lauderburn, D. E.

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Eisendrath Glove Company

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Can. Mathews Gravity Carrier Co.

HARNESS
Lamontagne Limited

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Bathurst Lumber Company
Cameron & Company
Chicago Lumber & Coal Co.
Fassett Lumber Company
Fesserton Timber Company
Fraser Limited
Gillespie, James
Heeney, Percy E.
Hoffman Bros.. Company
Long Lumber Company
McLennan Lumber Company
Moores, Jr., E. J.
Muir, Kirkpatrick & Sharpe
Murray & Gregory
Shafer Company, Cyrus C.
Spencer, C. A.
Stearns Salt & Lumber Company
Summers, James R.
Terry & Gordon
Webster & Bro., James

HARDWOOD FLOORING
Long Lumber Company
Wilson Bros.

HEMLOCK
Anderson Lumber Company, C. G.
Bartram Bros.
Blanchard Lumber Company
Bourgouin, H.
Fesserton Timber Company
Finch, Pruyn & Company
Godfrey, L. N.
Graves, Bigwood & Company
Haeberle Lumber Company
Hall Lumber Company
Hart & McDonagh
Laferte, J. A.
Long Lumber Company
Muir, Kirkpatrick & Sharpe
McGibbon Lumber Company
Mason, Gordon & Company
Spears & Lauder
Spencer, C. A.
Terry & Gordon
The Long Lumber Company
Woodstock Lumber Company

HOSE
Dunlop Tire & Rubber Co.
Gutta Percha & Rubber Company

HARDWOOD VENEER DOORS
Wilson Bros.

INTERIOR FINISH
Arkansas Land & Lumber Company
Arkansas Lumber Company
Arkansas Soft Pine Bureau
Canadian Western Lumber Company
Chicago Lumber & Coal Co.
Cotton Belt Lumber Company
Crossett Lumber Company
Eagle Lumber Company
Edgar Lumber Company
Freeman-Smith Lumber Company
Fordyce Lumber Company
Gates Lumber Company
Muir, Kirkpatrick & Sharpe
Southern Lumber Company
Stout Lumber Company
Terry & Gordon
Wilson Bros.
Wisconsin & Arkansas Lumber Co.

KNIVES
Disston & Sons, Henry
Peter Hay Knife Company
Simonds Canada Saw Company
Smith Company, R. H.
Waterous Engine Works Company

LATH
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Arkansas Lumber Company
Arkansas Soft Pine Bureau
Austin & Nicholsin
Bartram Bros.
Beck Mfg. Company, C.
Chicago Lumber & Coal Co.
Cotton Belt Lumber Company
Crossett Lumber Company
Eagle Lumber Company
Edgar Lumber Company
Fesserton Timber Company
Fraser Limited
Fraser-Bryson Lumber Company
Freeman-Smith Lumber Company
Fordyce Lumber Company
Gates Lumber Company
Graves, Bigwood & Company
Harris Tie & Timber Company
Long Lumber Company
McGibbon Lumber Company
McLennan Lumber Company
Muir, Kirkpatrick & Sharpe
Murray & Gregory
New Ontario Colonization Company
River Ouelle Pulp & Paper Co.
Southern Lumber Company
Stone, Fred J.
Stout Lumber Company
Spencer, C. A.
Terry & Gordon
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Victoria Harbor Lumber Company
Wisconsin & Arkansas Lumber Co.

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National Steel Car Company

LOGGING CHAINS
Columbus Chain Company
McKay Company, James

LOGGING ENGINES
Canadian Allis-Chalmers
Dunbar Engine & Foundry Co.
Jenckes Machine Company

LOG SKIDDERS
Canadian Allis-Chalmers

(Continued on page 66)

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James D. Lacey & Co.
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means that you may safely close your eyes and make the purchase, whether from or through our house or elsewhere. Our favorable advice, when given, is securely based on knowledge.

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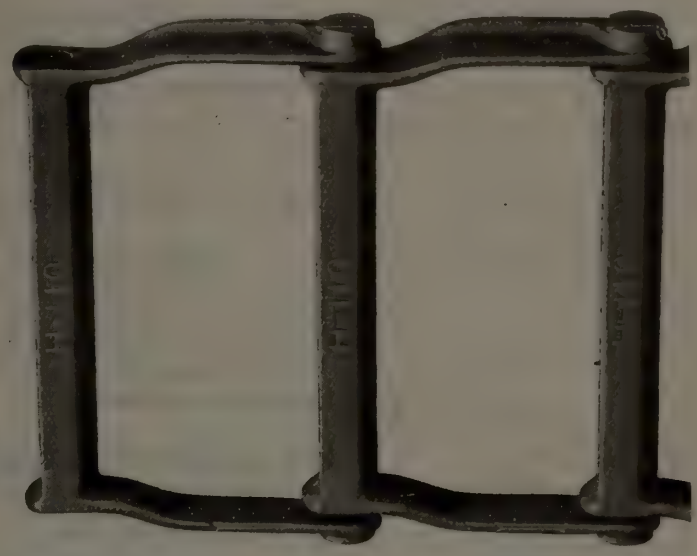
For Every Service

in elevating, conveying and power transmission.



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265 WEST WELLINGTON ST. - TORONTO

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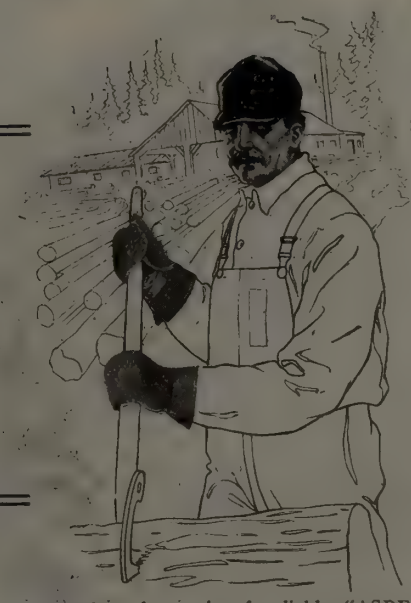

With a stout canthook and a pair of reliable "ASBESTOL" Mittens you are equipped to encounter the hardest kind of work.

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Gloves and Mittens

are long lived and sturdy.
Another of the many "ASBESTOL" features is that they can be washed and will dry out soft and pliable.

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Payette & Company, P.
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Waterous Engine Works Company
Yates Machine Co., P. B.

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Fesserton Timber Company
Fraser Limited
General Mercantile Company
Gillespie, James
Harris Tie & Timber Company
Heeney, Percy E.
Iowa Lumber & Shingle Company
Long Lumber Company
McGibbon Lumber Company
McLennan Lumber Company
Muir, Kirkpatrick & Sharpe
Pauze, Wilfred H.
Terry & Gordon.
Timms, Phillips & Company
Vancouver Lumber Company

(Continued on page 88)

The Babbitt Metal that's at the Front in Efficiency and Economy

HARRIS HEAVY PRESSURE

"The Babbitt Metal Without a Fault," is guaranteed to give EXCELLENT SERVICE. It will not crack or squeeze out. It will run cool at any speed. It is copper coated and copper hardened. It is best for all general machinery bearings. Order a box from our nearest factory.

It is Made in Canada. What We Make We Guarantee.

We Manufacture All Grades of Babbitt Metals.

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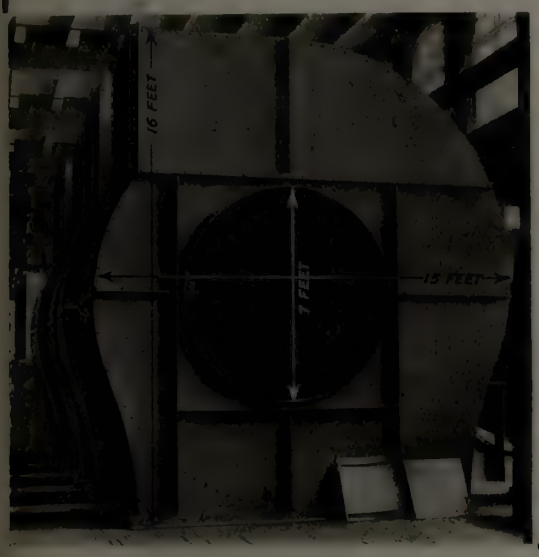
Planing Mill Fans 16 Feet High

We recently sold six No. 180 Slow Speed Planing Mill Exhausters to work in connection with an exhaust system installed in the plant of a prominent manufacturer of munitions.

Sturtevant
(TRADE MARK)

Planing Mill Fans

are made in all sizes and with a number of different types of wheels. For this reason we can serve you better than small manufacturers who cannot afford the heavy capital investment necessitated by a large number of types and who make merely one or two types of fans and install them for every condition.



If you need a fan for any purpose whatever call on Sturtevant.

Catalogue C. and full information sent on request.

B. F. Sturtevant Co. of Canada
Limited
GALT, ONTARIO

Montreal Winnipeg
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Don't Blame the
FIRE BRICK

if it fails to give satisfaction. More likely than not you have been using the wrong kind for your particular purpose. A firebrick intended for use in a small hand-fired boiler may not give the same result if used under high pressure boiler with mechanical stoker.

So when sending us your enquiries be sure to specify for what purpose these brick are to be used.

You are sure then of a high quality brick, that is absolutely the best for your purpose.

We Manufacture the Following Well Known Brands

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Catalogue is yours for the asking.

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Representatives for Maritime Provinces:
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LION
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BRAND
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For 90 years, the favorite brand

For more than ninety years we have been making our famous "Lion Brand" Rope for all purposes. In this time we have gained an intimate knowledge of the requirements of the lumber and woodworking industries. We know what style of rope to ship for your every purpose. Our specialists are ready at all times to give you sound advice as to the best methods of utilizing rope in your business. We make lath yarn and all rope required, large and small, for logging purposes.

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Fesserton Timber Company
Finch, Pruyn & Company
Fraser Limited
Fraser-Bryson Lumber Company
Gillies Bros.
Godfrey, L. N.
Grant & Campbell
Hall Lumber Company
Hart & McDonagh
Laferte, J. A.
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McLennan Lumber Company
Muir, Kirkpatrick & Sharpe
Murray & Gregory
New Ontario Colonization Company
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River Ouelle Pulp & Lumber Co.
Spencer, C. A.
Stone, Fred J.
Terry & Gordon.
Woodstock Lumber Company

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The excellence of Sterling Steel and our improved methods of manufacture make this possible.

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Government Contractors and the largest Manufacturers and Dealers in Canada of

Lumbermen's Tents, Bed Ticks, Grey Blankets, Nose Bags, Waterproof Goods, Steel Ranges and General Camp Outfits.

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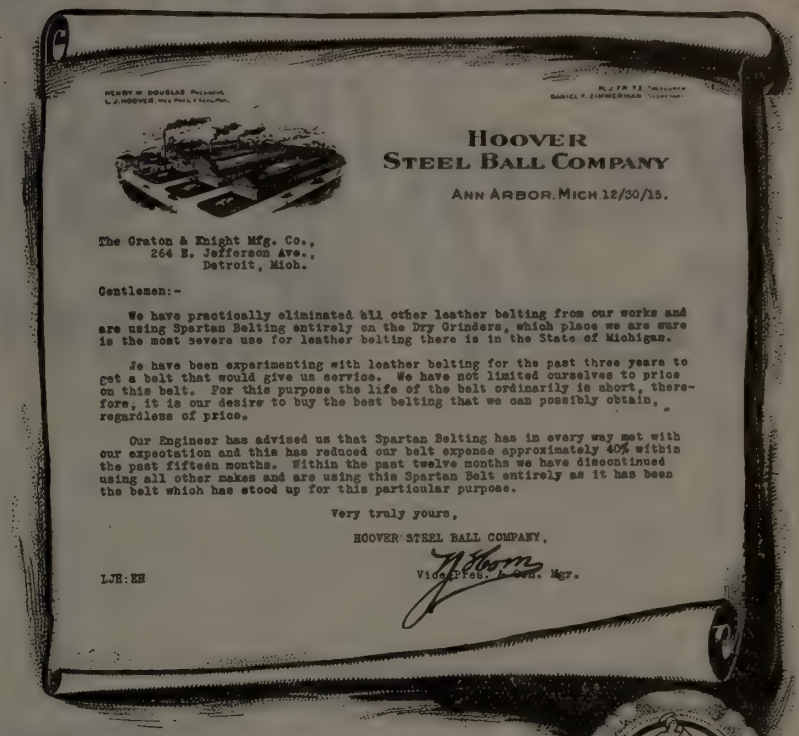
A 52-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog "H."**

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

BELTING EXPENSE REDUCED 40%



HOOVER STEEL BALL COMPANY
ANN ARBOR, MICH. 12/30/15.

The Graton & Knight Mfg. Co.,
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Gentlemen:-

We have practically eliminated all other leather belting from our works and are using Spartan Belting entirely on the Dry Grinders, which place we are sure is the most severe use for leather belting there is in the State of Michigan.

We have been experimenting with leather belting for the past three years to get a belt that would give us service. We have not limited ourselves to price on this belt. For this purpose the life of the belt ordinarily is short, therefore, it is our desire to buy the best belting that we can possibly obtain, regardless of price.

Our Engineer has advised us that Spartan Belting has in every way met with our expectation and this has reduced our belt expense approximately 40% within the past fifteen months. Within the past twelve months we have discontinued using all other makes and are using this Spartan Belt entirely as it has been the belt which has stood up for this particular purpose.

Very truly yours,
HOOVER STEEL BALL COMPANY,
J. Thorn
Vice-Pres. & Gen. Mgr.
LJH:EH

Spartan Belting is daily proving its efficiency in plants of every description—proving it so conclusively that Spartan is fast becoming the universal equipment for all drives where the physical conditions are quickly ruinous to ordinary belting.

The use of Spartan Belting in your mill will mean the solution of your Hard-drive problems—it will mean greater, more efficient and more economical service. Why not select one or more of your difficult drives and put Spartan to the test?

THE GRATON & KNIGHT MFG. CO.
Oak Leather Tanners and Belt Makers — Worcester, Mass., U.S.A.
REPRESENTATIVES IN CANADA:
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Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

MONTREAL LOCOMOTIVE WORKS, LIMITED,

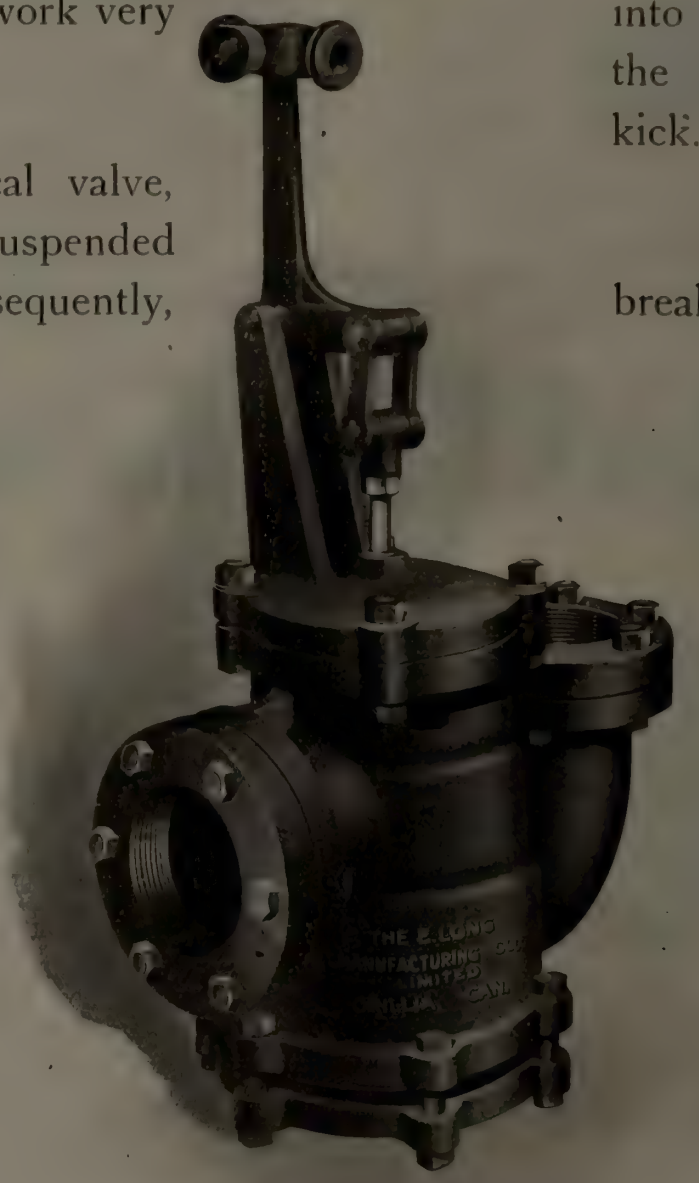
DOMINION EXPRESS BUILDING, MONTREAL, CANADA.

THE E. LONG MANUFACTURING Co.
SAW MILL MACHINERY
ORILLIA, CANADA

Vertical Steam Feed Valve

By reference to the cut, you will note that the valve stems are so connected to the bell cranks that one valve balances the other, therefore they are without friction and work very easily.

Being a vertical valve, the plug is virtually suspended in a film of oil, consequently, will remain steam tight for a long time. It is self draining, and being a vertical valve and connected as shown, when the sawyer's lever is plumb they are both on the centre, and therefore no amount of expansion will affect their proper working.



The exhaust, which is a mixture of steam and water, does not pass through the valve proper, but out underneath the plug, directly into the atmosphere, hence the valves do not stick or kick.

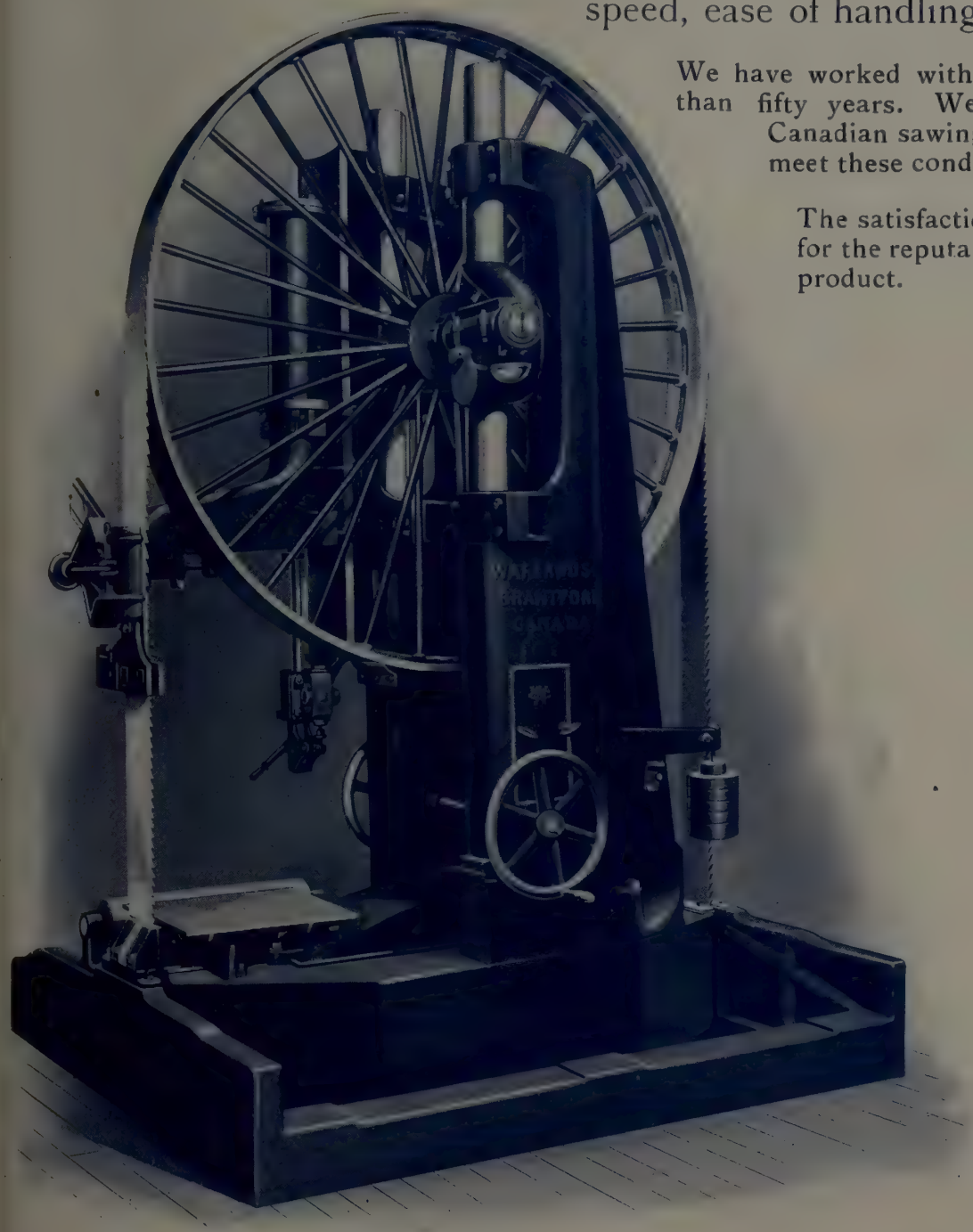
Should the connections break, the plug drops to position, completely closing the ports, thus making a safety valve as well as an operating valve. All valves are thoroughly tested under steam pressure before shipment.

Have you our catalogue?

The E. Long Manufacturing Co., Ltd.
Orillia, Ont.

WATEROUS SAWMILL MACHINERY

Every machine on our list—and that includes complete equipment from the log haul-up to the sorting table—is built to give the maximum satisfaction as regards safety, speed, ease of handling and general alrightness.



We have worked with the Canadian sawmill men for more than fifty years. We know Canadian mill conditions and Canadian sawing problems. Our machinery is built to meet these conditions.

The satisfaction and service it is giving is the reason for the reputation of goodness that stands behind our product.

Bandmills, 6, 7, 8, 9, 10 ft.
Band Re-saws
Board Lifters
Cant Flippers
Circular Sawmills
Conveying Machinery
Edgers
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Lathmills and Bolters
Live Rolls and Drives
Log Chains
Log Jacks
Log Loaders
Steam Niggers
Steam Feeds
Setworks
Transmission Machinery
Trimmers

Built in the largest, best-equipped shops manufacturing sawmill machinery in Canada.

Have you our Catalogues?

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$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our TROJAN BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

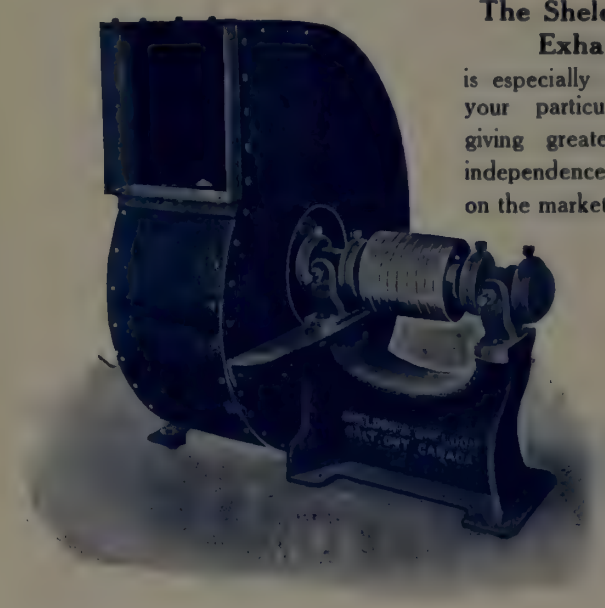
HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— **New York, N. Y.** **London, Eng.** **St. Louis, Mo.**

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

is especially designed to suit your particular requirements giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

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The J. C. McLaren Belting Co.

Limited

General Mill Supplies **MONTREAL**

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made

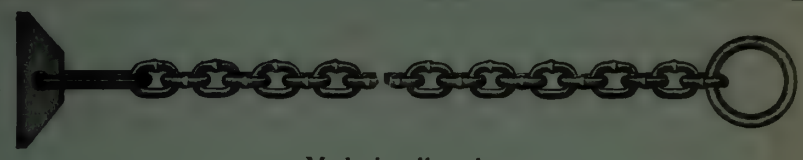
Canada Lumberman
& Wood Worker

DEFEAT

Your Pipe Coupling Troubles by using Dart Unions.

They NEVER Leak.

Your Jobber Sells Them



Made in all styles

Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

You can dry and cure lumber better in three weeks by using

Canadian Dry Kiln Apparatus

with Humidity Control

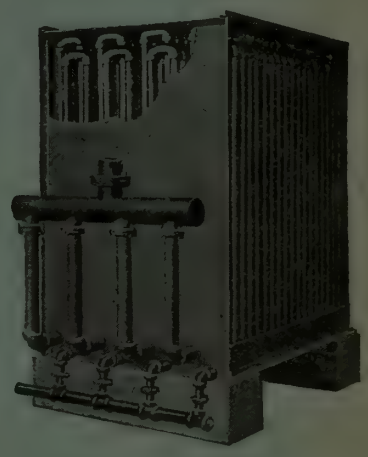
than if it were air dried for 2 years. And your lumber will not warp or check, or be subject to severe expansion and contraction.

Write Dept. 17 for further particulars

Canadian Blower and Forge Co., Limited

KITCHENER, (formerly Berlin), ONT.

St. John Montreal Toronto Winnipeg Vancouver



ASBESTOS

We manufacture practically every article that can be made of Asbestos—including

Asbestos { Packings, Boiler Gaskets, Pipe and Boiler Coverings

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)

REDUCE repair bills. **INCREASE** efficiency.

by the installation of Pumps built by

The Smart-Turner Machine Co., Limited

HAMILTON - - CANADA

MORRISON Jet Pump or Water Lifter operates by water pressure.

J. M. T. Steam Specialties

J. M. T. Steam goods have been designed to meet present-day needs. They are made of high-grade materials only, and the workmanship is high class and thoroughly dependable.

Whether you need stop valves, safety valves, ejectors, injectors, or any other steam goods, you can select your requirements from the J. M. T. line with the full assurance that they will give highest efficiency.

Prices, etc., sent on request.

The James Morrison Brass Mfg. Co., Ltd., 93-97 Adelaide Street West TORONTO

Alphabetical Index to Advertisers, Page 48 Classified Directory to Advertisements, Page 56

We are the Largest Manufacturers of

HYDRAULIC PUMPS, PRESSES and ACCUMULATORS

in Canada

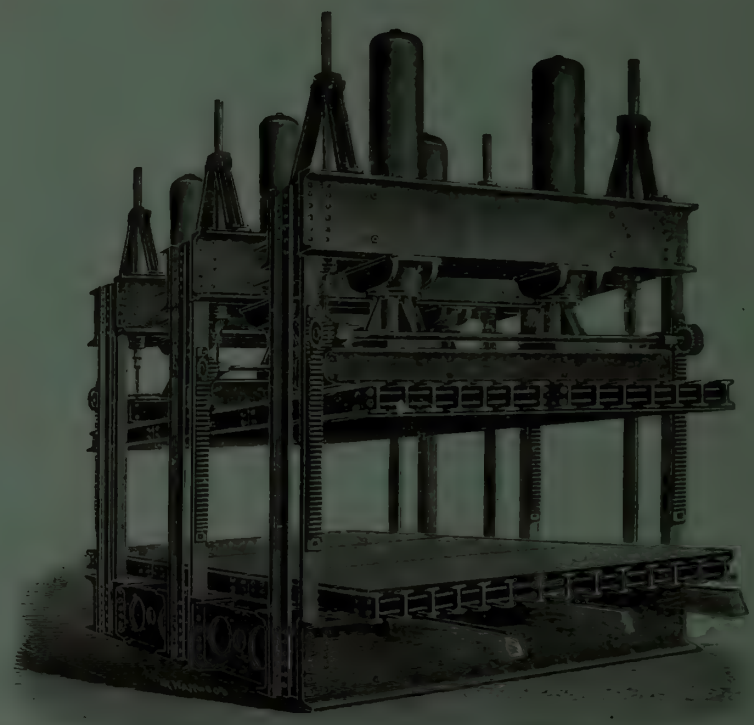
Veneer Presses - Pulp Presses - Tannery Presses

Packing House Presses - Baling Presses

Vulcanizing Presses - Forging Presses

Belting Presses and Tire Applying Presses

This cut represents one of our



Large Veneer Presses 100" x 180" 1000 tons pressure

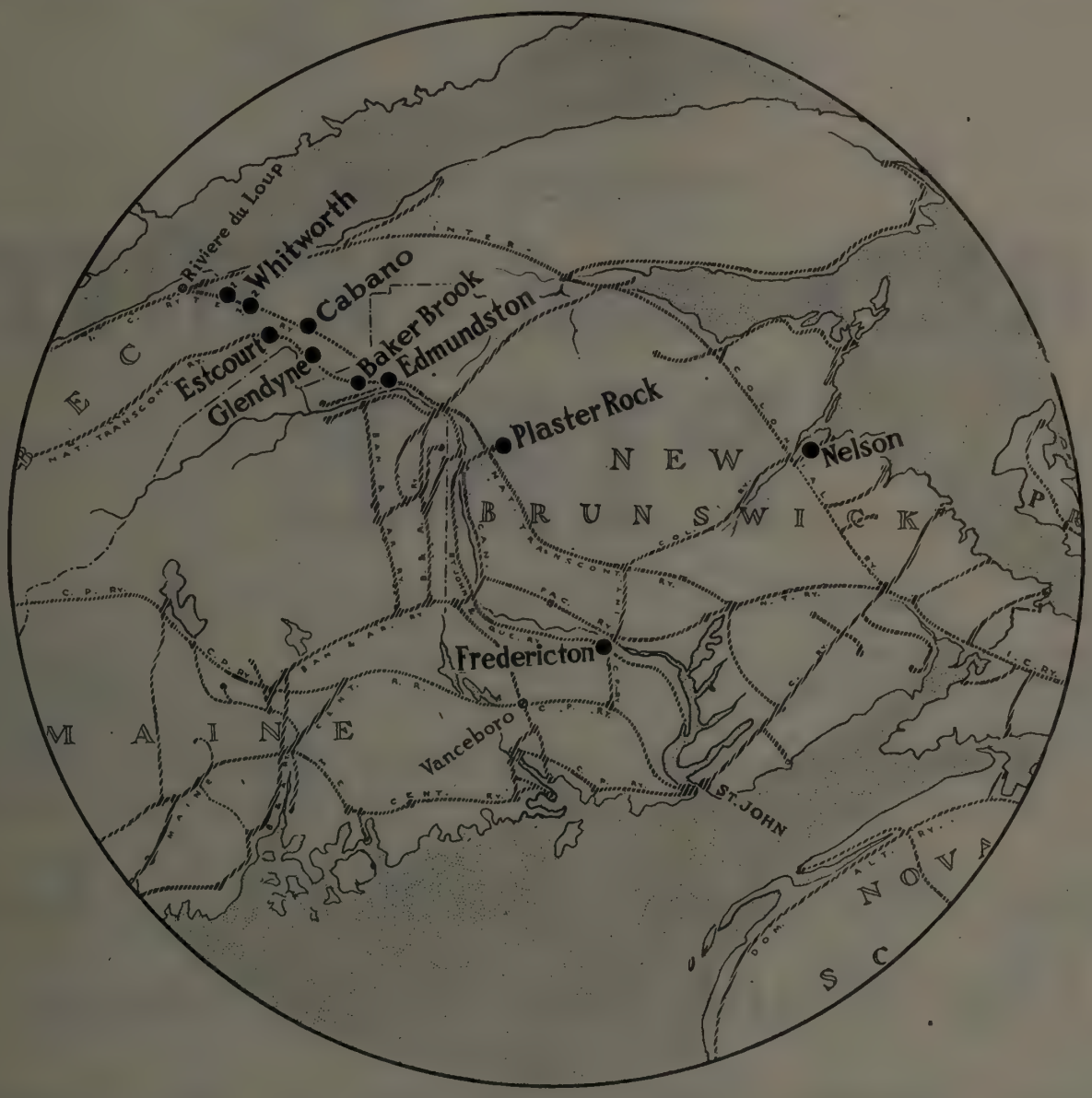
We also make them for as low as 60 tons pressure

Full specifications and quotations on request

Canadian Boomer & Boschert Co., Ltd.

18 Tansley Street - Cable Address "PRESSCO" - MONTREAL

Ten Band Mills to Serve You



Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

Fraser Limited, Fredericton, N. B.

ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

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Manufacturers of

RED and WHITE PINE

PLANING MILL **DRY KILN**

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

Longford Dry Hemlock

350,000	1 x 4 and up	No. 2 Hemlock	
150,000	2 x 6 and up	No. 2 "	
200,000	2 x 4	No. 2 "	
15,000	1 x 5 and up	No. 1 "	Sidings
30,000	1 x 6	No. 1 "	
8,000	1 x 7	No. 1 "	
30,000	1 x 8	No. 1 "	

Hardwood

80,000	1 x 4 and up	Mill Run Maple

Book your orders for 3X B.C. Shingles now!
We have four cars in transit

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Hamilton, Canada

Nashwaak Pulp and Paper Company
ST. JOHN, N. B.

Manufacturers of

BLEACHED SULPHITE & LUMBER

(Successors to Edward Partington Pulp and Paper Co., Limited)

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SHELL BOX STOCK

In 1 inch and 3 inch SPRUCE and PINE

In Good Dry Shipping Condition

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In Fir, Cedar, Spruce, Pine, Shingles, Lath, Silo Stock, Ladder Stock, Tank Stock, Timbers

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TORONTO - - - CANADA

LUMBER

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ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

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St. John, N.B., St. Camille and Lake Frontier, Que., cutting SPRUCE and PINE Lumber for British, United States and Canadian Markets.

Also

LATH, SHINGLES, PULPWOOD and RAILWAY TIES

Manufacturing and Grading Right

Trade *Mark*

Address all enquiries to our Head Office, ST. JOHN, N. B.

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Wholesale Lumber Dealers and Selling Agents for

Fraser & Co.

Mills at

DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1", 2" and 3" to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson

Chapleau, Ontario

Chicago Lumber & Coal Co.

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General Offices: EAST ST. LOUIS, ILLS.

Long Leaf Yellow Pine, Louisiana Red Cypress

Annual Capacity 350,000,000 Feet Yellow Pine
50,000,000 Feet Red Cypress

Nature's best in forest products

LET US QUOTE YOU PRICES

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask LOUIS WUICHET

Room 716 Railway Exchange, CHICAGO, ILLINOIS

BASS WOOD

We offer for immediate shipment—

1" and 1½" Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—

1 x 8½" 1 x 9" and wider

1 x 6 and 7" 1½" to 4"

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ASH HEMLOCK and PINE

HART & McDONAGH

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RED PINE WHITE PINE
SPRUCE

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The
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Ottawa - Canada
Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

The A. Sherman Lumber Company

POTSDAM -:- NEW YORK

offers in

Merchantable Spruce

one of the few complete assortments of 2″ now in captivity

2 x 4, 10/16 feet	200,000 feet
2 x 5, 10/16 feet	60,000 feet
2 x 6, 10/16 feet	300,000 feet
2 x 7, 10/16 feet	80,000 feet
2 x 8, 10/16 feet	300,000 feet
2 x 9, 10/16 feet	300,000 feet
2 x 10, 10/16 feet	350,000 feet

Notice that 8″ and wider. It won't last long. Better wire if interested.
Also get our offerings of 1 and 5/4″ x 4″ and wider Spruce.

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

Head Office and Mills at:
St. Pacome, Que., Canada
On I. C. Ry. 75 Miles East of Quebec City

Also Mills at:
Crown Lake, Powerville Riv. Manie
On Nat. Transcontinental Ry.

Ask your dealer for

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from Horse Shoe Logs

WHITE AND NORWAY PINE

Our White and Norway Pine products are nationally noted for their careful and uniform grading. Horse Shoe Logs have a big reputation to uphold, and they are doing it in a manner that will make you proud of them, same as we are.

HORSE SHOE PRODUCTS
"At Your Service"

Write for prices of Boxes, Box Shooks, Wooden Pails and Tubs, Pine Lath, and Cedar Posts.

C. Beck Manufacturing Co., Limited

Penetanguishene, Ont.

"WE AIM TO SERVE YOU WITH THE BEST"

Here We Are Again

with the Genuine

Draw String Shoe Pack

Orders from lumbermen all over Canada for the Midland-Gendron Pack keep our plant going day and night. These packs are made of the best selected leather manufactured specially for this purpose.

THE P.T. GENDRON SHOE PACK CO. MIDLAND GENDRON MIDLAND ONT. CAN.

Our Catalogue will be sent on request.

P. T. Gendron Shoe Pack Co.

MIDLAND, ONTARIO

RIGHT GRADES
QUICK SHIPMENTS

Canadian Western Lumber Co.

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As a practical man it would interest you to see "Famous Five" files being made.

You would be satisfied with the quality of our steel; the processes of shaping, annealing, grinding, cutting, hardening and sand-blasting would convince you of the efficiency of the finished product.

And you would have confidence in our method of testing each file before it leaves the factory.

Specify them when you order. They are

Kearney & Foot
Great Western
American
Arcade
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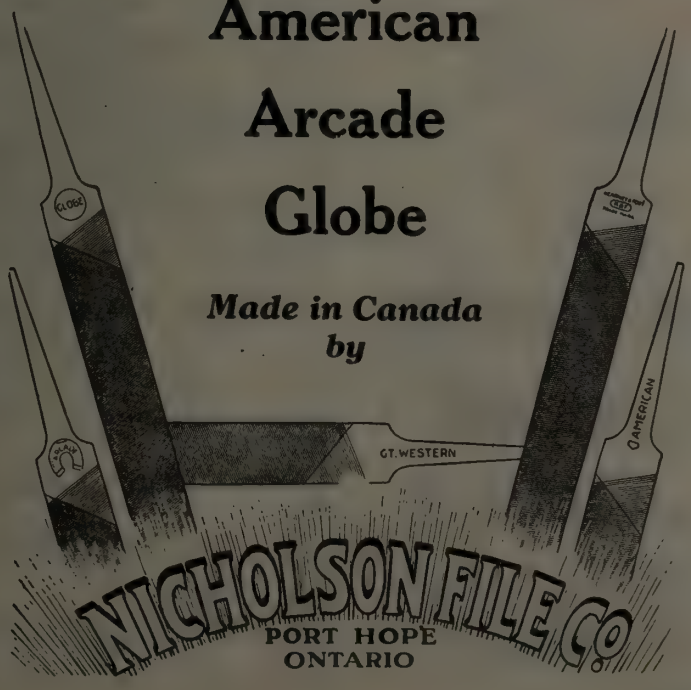
Made in Canada by



FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
1 Wood Machine for 22-in. wood.
1 Edger for ripping dry lumber, installed.
1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

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Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

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Grant & Campbell

Manufacturers of

SPRUCE, HEMLOCK TIMBERS AND PILING AND LATH

Prices promptly given on all enquiries.

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B.C. FOREST PRODUCTS

922 Metropolitan Building, Vancouver, B.C.

Lath Wanted

We are Buyers of

ALL GRADES

WHITE PINE, SPRUCE and HEMLOCK LATH

Will contract for entire output and pay spot cash

Send full particulars as to grade, quantity and prices

FRED. J. STONE

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Veterinary Wonder Remedies

10,000 one dollar ($1.00) bottles Free to horsemen who give the Wonder a fair trial. Guaranteed for Colic, Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 25c for Mailing Package, etc. Agents wanted. Write your address plainly. DR. BELL, V.S., Kingston, Ont.

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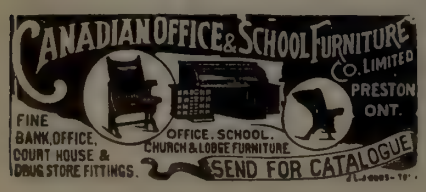
Wire tied box shooks can be handled more easily, more economically and with the safe assurance that wire will not break. Write for Quotations.

LAIDLAW BALE-TIE CO., Ltd.

HAMILTON, ONT.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CO. LIMITED
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FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
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SEND FOR CATALOGUE

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We have a full line of

White Pine

in 4/4 and 8/4

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2 x 4" - 6" - 8" - 10" - 12" x 18 feet

Red Pine

4/4 C.&C. face—RED PINE

SEND US YOUR INQUIRIES

We are also in the market for the output of mills—both Soft and Hardwood.

We Pay Cash

C. G. Anderson Lumber Company, Limited

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Room 38-9

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HAEBERLE LUMBER CO.

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White Pine, Norway, Yellow Pine, Hemlock Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties,

Yellow Pine Timber a Specialty, Interior Trim Mill Work

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Eastern and Southern Lumber

We are at all times in the market for dry WHITE PINE, DIMENSION SPRUCE, SPRUCE BOARDS, HEMLOCK BOARDS, LATH and CLAPBOARDS.

Advise us of your Market Prices and Stocks

A. H. Richardson Lumber Co.

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Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion

"SALADA"

Send for samples and prices.

SALADA TEA CO. TORONTO

PRESSES

Hydraulic and Screw for

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VENEER DRYERS

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Special machinery made to order

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SPECIALTIES

Sawed Hemlock
Red Cedar Shingles
White Pine Lath
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James Gillespie

Pine and Hardwood

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Lath and Shingles

North Tonawanda, N.Y.

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Our reports are the result of the honest work of experienced men. We deal in facts.

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TIMBER ESTIMATES
Appraisal of timber lands, timber maps, logging efficiency reports, planting. Maximum of accuracy in minimum time and at minimum expense.
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Is prepared to make reports, and estimates on all classes and kinds of Timber, together with Maps, and cost of operating, also sell or buy for you.
25 years practical experience in woods operations and cruising.
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Technical training and ten years' experience. Timber Estimating and Mapping. Supervision of Lumbering Contracts. Surveying. Forest Planting.
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A1 and A B C Codes used

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Handles
Staves Hoops
Headings
James WEBSTER & Bro.
Limited
Bootle, Liverpool, England
London Office
Dashwood House 9 New Broad St. E. C.

"Well Bought is Half Sold"

We offer the following lots of DRY HARDWOOD

100 M 1 x 4/up No. 1 Com. and Btr. Birch.
50 M 1 x 4/up No. 2 Com. Birch.
6 M 5/4 first and seconds Birch.
3 M 6/4 first and seconds Birch.
10 M 12/4 first and seconds Birch.
2 M 16/4 first and seconds Birch.
23 M 6/4 Good Basswood, wide.
2 M 6/4 first and seconds Black Ash.
1 Car 4 x 6 Birch Hearts.
5 M 1 in. No. 3 Com. Birch, Beech, and Maple.
6 M 16/4 Good Hickory.
3 M 8/4 Good Hickory.
1 Car 6/4 No. 1 Com. and Btr. Birch.
2 Cars 10/4 No. 1 Com. and Btr. Birch.

Norway Timbers

36 M 6 x 12 to 12 x 12, 16/20 ft.

Lath

We have 500 M 3/8 x 1½ 4 ft. Dry Merch. Spruce Lath.

We will be glad to quote the above upon request.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine
Hemlock
Hardwood
} **LUMBER**

712-20 Traders Bank Bldg., Toronto, Ont.
Mills: Byng Inlet, Ont.

PETRIE'S
MONTHLY LIST
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NEW and USED
WOOD TOOLS
for Immediate Delivery

Band Saws
42" Fay & Egan power feed.
36" Crescent pedestal.
32" Crescent pedestal.
30" Ideal pedestal.
26" Crescent pedestal (2).
20" Crescent pedestal (2).

Saw Tables
No. 2 Crescent, combination.
No. 3 Crescent, universal.
No. 5 Crescent, sliding top.
Preston variable power feed.
Ballantine variable power feed.
M138 Cowan power feed.
12' Defiance automatic cut-off.
MacGregor Gourlay power feed cut-off
Champion combination wood top.
7½' iron frame swing.
6½' Williams wood frame swing.
6' Crescent iron frame swing.

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30" Whitney pattern single surfacer.
26" revolving bed double surfacer.
26" revolving bed, single surfacers.
24" various makes single surfacers.
24" revolving bed single surfacer.
22" stationary bed surface planer.
13" adjustable heading.

Sanders
24" Fay double drum.
18" Crescent disk.
12" C.M.C. disk and drum.

Moulders
13" Clark-Demill four side.
12" Cowan four side.
10" Houston four side.
6" Cowan four side.
6" Dundas sash sticker.
5" wood frame sash sticker.

Mortisers
M190 Cowan hollow chisel.
Galt upright, compound table.
Fay graduated stroke
No. 1 Smart foot power.
No. 2 Smart foot power.

Clothespin Machinery
Humphrey No. 8 giant slab re-saw.
Humphrey gang slitter.
Humphrey cylinder cutting-off machine
Humphrey automatic lathes (6).
Humphrey double slotters (4).

Miscellaneous
MacGregor Gourlay 12 spindle dovetailer.
Fay & Egan 12 spindle dovetailer.
Cowan dovetailing attachment for wood shaper
M80 Cowan dowel machine.
Bench dowel machines, hand feed.
M85G Cowan post boring machine.
M23 Cowan post boring machine.
New Britain drawer lock machine
M137 Cowan sash clamp.
Galt blind-slat resaw.
Galt blind-stile borer and mortiser.
Goldie & McCulloch blind-slat wiring machine
Egan sash and door tenoner.
Dundas double head tenon machine
16" Ideal wood lathes
No. 6 Lion universal wood trimmer.
6 nail Meyers patent box nailer
20" American wood scraper.
Broom handle and rod machine.
4-head rounding machine.
M63 Cowan spindle carver.
15 Cowan veneer screw presses
Iron frame 3-block sawmill.
Dunbar automatic shingle machine.
48" 3-saw edger.
No. 1 Hart automatic saw filer.
Allis-Chalmers-Bullock log loader.

Prices, Descriptions and full particulars on request.

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(Wholesale Only)

FIR TIMBER and Finish, CEDAR SHINGLES and Lumber

Sole Selling Agents for **The British Columbia Mills Timber and Trading Co.**, of Vancouver, B.C., for Fir Finish and Flooring for the Province of Quebec and the Maritime Provinces.

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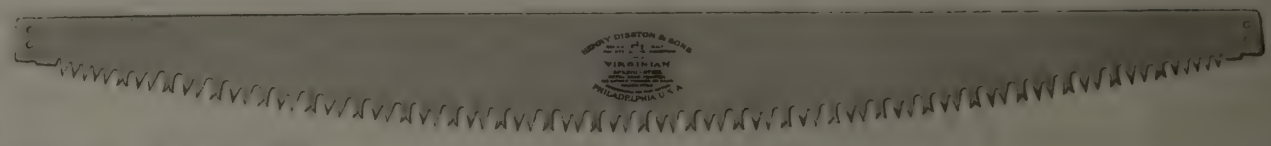

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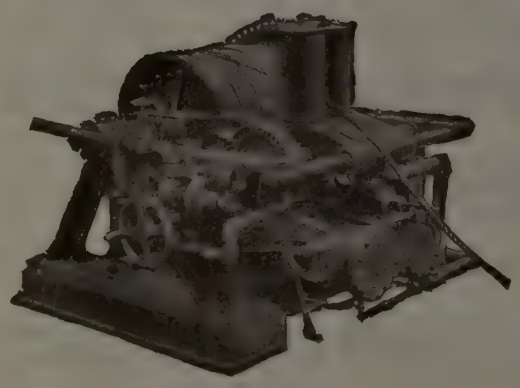

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Canada Lumberman & Wood Worker

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Do Unto Others, etc.—A Good Trade Maxim

"Trade ethics" is a fine, expansive sort of term, which lends itself to all kinds of treatment in discussion, according to the frame of mind of the individual. It is an easy matter to treat the idea of "trade ethics" lightly and to dismiss it with a casual statement that every man is a law unto himself, and that the great law of the survival of the fittest will take care of all the problems of ethics that will ever turn up. But the idea involved in connection with ethical trade behavior is not of a casual nature, and such a dismissal of it will not satisfy, in his own mind, even the individual who makes it. In business life, just as much as in private life, there is a line over which it is neither wise nor safe to step, and on one side of that line may be found those who practice, according to their light, the principle of doing unto others as they would be done by. This is the keynote of trade ethics, and, intricate as the problems arising out of it may be, it is a simple matter to reduce them to this elementary formula and to set up a practical working standard for personal and corporate conduct.

The days of trade individualism, as we have pointed out elsewhere, have passed away. We hope never to see them again. The crisis through which the world is passing to-day will help to develop the ideals of co-operation which trade associations have been seeking to establish. It is not necessary, in this connection, to treat the subject after the manner of a sermon. It can be handled purely from the materialistic point of view, which undoubtedly carries definite and widespread appeal. Fair treatment of your confrere invariably pays best. The man who seeks to obtain an advantage over his fellow by furnishing him with false information, or by leading him astray, in any manner whatever, as to the value of a line of goods, as to its grade, quantity, or price, or false information as to the financial soundness of a customer, or who adopts any of the numerous methods available for stealing a march on his fellow, may sometimes get away with it for the time being, but practices of this kind resemble the liquor habit. They not only have a tendency to form a habit, but they also have a "morning after." They lower the moral standard of the individual, and leave him open to the reproof of his fellows, so that continued persistence in them brings loss and even disaster.

To a considerable extent the editor of a trade journal is privileged, in discussion with the members of the trade, and one of his privileges is to hear, in confidence, accounts of the working out of such lines of conduct. We have, in many cases we regret to say, heard of just such business conduct as every man in his proper frame of mind condemns; and we have no hesitation in saying that every instance we have come across, whether it has been communicated to us by way of condemnation or by way of a boast on the part of the transgressor, has carried with it its inevitable punishment, generally a punishment involving loss of trade, accompanied by loss of personal pride in one's own business conduct.

We do not want the readers of the Canada Lumberman to think that we have been reading them a lecture. The inspiration of these remarks is an address delivered before the Lumbermen's Section of the Toronto Board of Trade, by Mr. A. E. Eckardt, which we have reported at considerable length elsewhere in this issue. We were struck, in listening to this address, both by the fine spirit in which it was handled by the speaker, and by the manner in which it was accepted by those who heard it. From nearly every one of those who listened we have at times heard complaints of the conduct of others, but, we hasten to add that such condemnation as we have heard has been growing less frequent of late years, and has often been tempered by a readiness to give the other fellow the benefit of the doubt. This spirit will go a long way towards making the lumber trade a real pleasure to those who are engaged in it. We feel a fine glow of pride in being associated with the lumber trade in Canada to-day, because its ideals are undoubtedly high, and are being lived up to in a manner equal to that of any other industry or trade in the country.

The Ocean Tonnage Crisis

"Drastic" would be a mild term to apply to the plans announced in the British House of Commons by Prime Minister Lloyd George for coping with the shortage of ocean tonnage. Such a critical situation as the nation has to face, however, demands nothing short of drastic treatment, and no one in Great Britain or in the overseas Dominions will hesitate for a moment in commending the steps that have been taken by the British Government. In fact, the frank statement of the Prime Minister has cleared the air greatly by letting the whole Empire know what it has to face and how it is to be done. A feeling of relief succeeded the first sense of awe and surprise which the Prime Minister's statement created—relief because the statesmen of Great Britain have not hesitated to take the nation into their confidence, and because the plans that have been decided upon are so encouraging a guarantee of the ability of the nation to face and to overcome the difficulties of the hour.

So far as the timber trade of Great Britain is concerned, the announcements made by the Prime Minister are little short of revolutionary. Taken in conjunction with the measure, previously announced, for commandeering the timber supply, and the reported intention to regulate the cost of transportation, these plans constitute a trade revolution of the most extreme type; yet we know that the timber trade of Great Britain, and those who are interested in it overseas, will abide loyally by the decision of the government, and make whatever sacrifices the national safety demand. Taken in their entirety, the measures relating to the timber trade form a well-rounded scheme for reducing the quantity of tonnage required for transportation of timber, and for making the utmost possible use of those supplies of timber that are already on hand in Great Britain and France, besides arranging for the conversion of home-grown timbers as extensively as the available labor supply will permit.

In the first place, as announced elsewhere in this issue, the British Army Council have issued to the timber trade of Great Britain two orders, which require that henceforth the sale of stocks of timber shall be permitted only upon certain definite conditions set forth in licenses to be issued for this purpose. The stocks already on hand in Great

Britain are taken over by the British Government. Merchants owning stocks are allowed to sell them only in quantities not exceeding two standards—3,960 superficial feet—and no sales are to be made except under the conditions set forth in the license, namely, that they are to be used for purposes of great urgency only, the circumstances of such urgency being fairly definitely indicated by the orders.

One of the most embarrassing features in connection with the timber trade of Great Britain, since the commencement of the war, has been the rapidly-increasing price, caused by high ocean freight rates and by the advancing cost of production. So far as it is possible to regulate these costs the British Government is taking steps to do so by ordering that such sales as are made shall be at prices not to exceed those which were in effect on January 31, 1917. The success of this measure will be dependent largely upon the availability of tonnage to transport fresh supplies to Great Britain at a freight cost not in excess of that which prevailed previous to January 31, and in this connection the steps taken by the government are counted upon, by reducing the demand upon available tonnage, to keep the transportation cost down. Further than this, according to information which we published in our issue of February 15, the British Government intend to limit the cost of transportation by commandeering the profits of British merchant vessels, allowing them a profit of 7½ per cent. over and above the cost of maintenance and repairs.

Added to these measures, it is to be presumed, from the reference made by Prime Minister Lloyd George to the work of the forestry battalions in Great Britain and France, that this source of timber supplies is to be extended as much as possible, so as to furnish both in Great Britain and France the greatest possible quantity of home-grown timber for the requirements of the army and for the collieries. It is not possible at present to appreciate in advance the full significance and details of the situation that may develop out of these revolutionary changes. It is sufficient to say, however, that so far as the timber trade of Canada is concerned, any sacrifice that it may be called upon to make will be made without question or murmur.

Logging Conditions East and West

Quebec Manufacturers Facing Many Difficulties

Mr. W. Gerard Power, St. Pacome, P. Q., in a letter to the Canada Lumberman, discusses the manufacturing situation in Quebec Province, as follows:—

"Trade conditions during 1916 developed pretty much along the lines that I had anticipated. Practically all the stock we manufactured was sold to the American market, and 75 to 80 per cent. of it would have been shipped if we had had a fair car supply. On account of the car shortage we did not ship more than fifty per cent. of our total cut. At present, shipping operations are practically at a standstill.

"The United States market has been quite active during the past four months, and prices ruling today are considerably higher than they were a year ago. Numerous enquiries are being received every day by all manufacturers of spruce. So far as we know, very little spruce of 1917 manufacture has yet been sold. Manufacturers have not been able to put definite prices on their stock so far, because of the great increase in the cost of labor, provisions, etc. During the last six months of 1916 the labor situation was the most serious that we ever had had to contend with since we have been in business, and the same conditions have continued up to the present. We fear that by spring the situation will be desperate and no one today can foresee just where he will find sufficient labor for operating his mills next summer. We believe, that on account of the very severe weather in Quebec Province, there will be a considerable reduction in the quantity of logs taken out, and this will naturally have an important effect upon the market. We anticipate that our cut during 1917 will be reduced by 25 per cent. and we understand that several firms in our district will also have a reduced cut.

"During 1917 we expect that there will be a greater quantity of logs turned into pulp and paper than ever before, and this will naturally reduce the total quantity of spruce lumber manufactured in the province. The ruling prices of pulpwood are now a great deal higher than they have ever been before.

"In connection with the export business to the United Kingdom, the situation today makes it very difficult for anyone to discuss probable developments from this side of the Atlantic.

"We fully expect that prices of spruce lumber will be higher, both in the United States and the Canadian markets during the whole of 1917. Manufacturers must get more money for their lumber, as the cost will be increased by at least 30 per cent., and before all the lumber is piled in the yard the increase may be even greater than we can now figure upon."

B. C. Loggers Have Many Problems

Bloedel, Stewart and Welch, Limited, Myrtle Point, B.C., in a letter to the Canada Lumberman, give some interesting comparisons of logging conditions during the present season, and those of previous years. "Present logging history," they say, "dates from August, 1914. The years previous to that seem like a dream, when labor was plentiful, living costs within reasonable bounds, and supplies of all kinds obtainable at moderate prices. Conditions today have changed so radically that comparisons seem impossible, yet when one analyzes the whole situation it appears remarkable that we are able to do any business that is not directly dependent upon the demands of war.

"The lumber business, considering the dearth of off-shore bottoms, has been harder hit probably than any other class of business in British Columbia. In 1914 it came practically to a dead stop. In February, 1915, some of the logging camps opened up cautiously in a small way, groping in the dark as it were, and trusting that something would turn up to furnish enough business to pay the men, who, at that time, were willing to work for anything they could obtain. Gradually we found that we could do business in spite of the war, and on December 31st, 1915, we found that by careful management we had made a small profit and given employment to several thousand men.

"In March, 1916, after one of the hardest winters that had ever visited the Pacific Coast, we were able once more to open the camps, as labor was plentiful and the mills were very short in their log supply. This condition existed for about six weeks, when the heavy call for men for the front began to deplete the camps and cause a corresponding demand for increased wages. So serious did this condition become that before July, 1916, we were compelled to petition the government to permit us to bring in men from the United States side. While our hopes were raised by the government in this connection, the relief was not really apparent, as the immigration inspection and restrictions were very severe. On December 15th, the Christmas shut-down brought a sigh of relief. In a period of nine months, wages had advanced from 25 to 50 per cent. over those of 1915, and there had been a corresponding decrease in efficiency. Materials and supplies of all kinds advanced in price, in some cases 100 per cent., while the price of logs showed no improvement. It was therefore with no feeling of security that we contemplated the advent of 1917.

"Advanced methods of logging, particularly the high lead, have been of material assistance in our operations, but skilled labor is necessary for operating these machines, and many of the men who could handle this work have responded to the call to the colors, giving their services at the front. We are seriously handicapped also by the lack of timber fallers and buckers, whose ranks are largely recruited from Norwegian, Swedish and Finish labor. They, too, have gone to the front, largely with the forestry battalions.

"With these conditions confronting us it would seem that, if British Columbia's largest industry is to be kept in operation, there will have to be some changes in our immigration policy so as to permit the entry of classes of labor that are not detrimental to the successful carrying on of the war. However, we are not complaining. Those of us who stay at home must bear our share of the burden and endeavor to keep the wheels of progress turning, although the motive power at times seems to be almost exhausted, and the way out is not clear."

Western Logging Operations of the C. P. R.

Logging operations in Western Canada are carried on in a number of different ways, depending chiefly upon the nature of the country and the availability of an adequate and suitable labor supply. Mr. R. D. Prettie, superintendent of the Department of Natural Resources of the C. P. R., describing the operations carried on by the C. P. R., in a letter to the Canada Lumberman, says:—

"We operate in a very difficult country and practically all our logs and ties come off side hills, being conveyed by means of chutes into the Bull River or one of its branches. We do not conduct any of our logging operations ourselves, but let them all out by contract to small jobbers. We know approximately what it costs to log on any particular territory which we have in mind, and we allow the contractor a small margin of profit over and above the operating cost.

"It is a very difficult problem in British Columbia to obtain any jobbers who are possessed of sufficient money to go into the woods, establish logging camps, build their log and tie chutes and meet their payrolls as they become due. Therefore, we are obliged to finance

practically all of our contractors. We furnish them with supplies, meet their payrolls, and deduct the amount advanced, from what they have accruing to them from time to time for their log and tie production. Under these conditions we are obliged to keep a very close check on the daily operations of the contractors, but the system works out pretty well. It was a difficult matter to establish this system, particularly in British Columbia, as most of the men were accustomed to working by the day, and hesitated to undertake contracts, but we have it in operation now and are getting satisfactory results.

"On the limits on which we are now operating there are creeks which cannot be driven, and we are trying to solve the problem of getting the logs tributary to these creeks into the main river in an economical manner.

"Not only do we give out contracts for our logging, but all the work on our operations is done by contract. The hauling of supplies, skidding of logs, piling of lumber and hauling of lumber from the chain to the pile is all done on the contract system, and we find it very satisfactory.

"All the slash along our main roads is piled and burned during the suitable season of the year. In the summer, when, as a rule, we have many men in the woods, and when fishermen are busy on all the streams, we maintain a lookout man on what is known as 'Look-out Mountain.' From this position he is able to overlook practically all the streams and the whole of our operations. He is in telephone communication continually with the main camp, and with the head office in Bull River. So far as actual logging work is concerned our operations are conducted in a manner practically similar to all manufacturers in that district, with the single exception that the work is all let out to contract."

Conditions Encouraging for B. C. Trade

C. S. Battle, of the C. S. Battle Timber Company, Vancouver, B.C., in a letter to the Canada Lumberman regarding trade conditions, says:

"Just now we have the strongest export market this section has experienced for a number of years, and business is only limited by the lack of bottoms. This difficulty is being remedied to some extent by the building of vessels on the coast in British Columbia and Washington, and the indications now are that the shipbuilding industry will enjoy a boom for a number of years. Those who are interested in sawmilling and in standing timber now realize that they must have ships to market their lumber, and every effort is being made by the government, as well as by the individual, to meet the demand within a reasonable time.

"I am reliably informed that there will be at least two large export mills started in this vicinity during 1917. Nearly every boat leaving this port for the Orient or Australia carries more or less lumber, and the business established with the Orient is increasing all the time. When the war is over and China begins to expand, as it will, it will require a vast amount of ties and railroad timber, in addition to other materials. All signs point to a heavy business in lumber for four or five years after the war is over.

"The war has given a new impetus to the pulp and paper situation in this province. The Pacific mills at Ocean Falls are doubling their capacity. The Powell River mills, I am informed, are increasing their capacity. A new mill is being built at Quatsino Sound, and it is very likely that a pulp mill and sawmill will be erected at Beaver Cove. Timber holders are beginning to appreciate the fact that pulp timber will be just as valuable as saw timber within a few years, as it has been demonstrated that our hemlock and larch or balsam make fine pulp and paper.

"We are having more enquiries for standing timber than for a number of years, and it looks as though 1917 will witness the best business we have had for four or five years. Everything considered, the outlook for lumber and its allied interests is good all along the line."

Manitoba and Western Ontario Conditions

Hugh R. Patriarche, Winnipeg, Man., reports under recent date a very decided improvement in selling conditions for lumber and forest products generally. In a letter to the Canada Lumberman, he says:—

"The greatest demand, of course, is coming from country points, as there is still very little building being contracted for in the larger centres and cities. Pacific coast stocks show a decided upward tendency in price, judging from several advices just received from our coast connections.

"During the year 1917 production will be greatly curtailed. The cost of production has increased very much, and it is almost impossible to keep complements of men in the logging camps. These conditions seem to prevail not only on the coast of British Columbia, but throughout the mountain districts, the northern spruce areas, and western Ontario pine districts. In my cordwood camp in western Ontario, wages today are $45 per month and board, or $1.50 per cord of 128 cubic feet in the pile. The rates last year in the same districts were $12 to $16 per month and board, or 80c per cord in the pile. The cost of all commodities has advanced greatly, and today it requires an outlay of $1 per day to board a man where the freight haul is from 150 to 200 miles."

Norman Hocken Reviews Last Season's Trade

Mr. Norman C. Hocken, of the Hocken Lumber Company, Otter Lake Station, Ont., reviewing trade conditions during the past year, writes as follows:

"While we had many difficulties with which to contend, the year was, on the whole, a fair one. Our logs were taken out under favorable conditions in regard to labor and weather, and consequently their cost was about normal. Our manufacturing costs, however, increased about 25 per cent. Our sales were fair and collections good. The trade during the year was not general, but spotty. Wherever it was found it was in fairly large volume.

"Retail yards, generally speaking, were very low in their stocks, and any buildings erected in their vicinity of fair size, for which they had the contract to supply lumber, made it necessary for them to buy a car or two. Consequently many orders received were of a complicated nature.

"Towards the end of the season it was realized that the cost of production had advanced materially, being estimated at from $5 to $6 per thousand. This, together with the scarcity of labor, has induced many manufacturers not to operate, in order to avoid a heavy loss. During the past two years manufacturing has not been any too profitable, and quite a number have been gradually dropping out, causing stocks at the mills to be greatly reduced n the aggregate. About October the trade realized that they would have to face a decided shortage in the supply, and this led to sharp advances in price on all kinds of lumber, which assisted the manufacturer and enabled him to finish the season of 1916 to much better advantage than he had anticipated.

"It is pleasant to note that the trade is showing a strong tendency to favor Canadian products. No doubt this is partly due to patriotic sentiments, but also reflects the opinion of the trade in regard to the comparative values of Canadian and imported stocks. We may look forward to an increased trade in Ontario in British Columbia products during 1917. Ontario manufacturers will not be able to supply the trade, providing the demand is anything like normal, and British Columbia products have merits which we must admire. Present prices must remain, or, if there is any change, it must be in the direction of further advances, if Ontario manufacturers are to continue in business."

Operating Costs Greatly Advanced

Wm. G. McKay, logging superintendent for J. R. Booth, Madawaska, P. O., Ont., in a letter to the Canada Lumberman, describing the company's logging operations during 1916, says:—

"We commenced operations in May last, but had very few men during the summer, as labor was very scarce. Later in the season, during August, there was a more plentiful supply of labor, and at the same time wages went up. In the early part of the summer, the class of men we had in our camps was poor, but from August on we obtained a fair lot of men, and we find that they are staying steadily at work and turning out about an average amount per day. Weather conditions until the winter set in were characterized by an unusual quantity of rain, the streams and lakes being brought up to very strained levels, and the swamps full of water. During the early part of the winter the weather conditions were good, including a fair snow fall and steady frost.

"Logging operations at Madawaska are carried on by rail, all the logs being loaded on cars to go to the mills at Ottawa. From the middle of May to the middle of August the hemlock, spruce and balsam logs are peeled. After the middle of August the timber is cut with the bark left on. The chief cut in these camps during this season is pulpwood. The company have six large camps and employ in them and on the railway about 400 men. During the hauling season they use 90 teams of horses.

"The cost of operation this season has been much higher than a year ago. Wages are from 30 to 40 per cent. higher and all supplies have advanced in price, examples at the end of 1916 being:—pork $32 per bbl., beans $5.50 per bushel, butter 36c per lb., beef 10c per lb., and potatoes $2 per bag. Some lines have advanced more than 100 per cent. in cost. All sorts of rigging, such as chains, axes, saws and wire, are much higher in price, and in some cases hard to get. The price of lumber and pulp will have to advance greatly in order even to cover the cost of taking it out."

Preliminary figures compiled by the Forestry Branch of the Department of Lands of British Columbia indicate that the cut of timber during 1916 was considerably greater than that of 1915, and that its value will be at least $44,000,000. The 1915 value was $29,150,000.

Another B. C. Firm Opens Toronto Office

R. G. Chesbro, Toronto.

The increasing interest that is being taken by the consuming trade in Eastern Canada in British Columbia lumber and shingles is illustrated by the opening of an office in Toronto by the Victoria Lumber and Manufacturing Company, Limited, of Chemainus, B. C. Mr. R. G. Chesbro, whose portrait we are pleased to publish herewith, has recently been appointed to represent the company in eastern Canada, with office at Toronto, the address being 1503 Traders Bank Building.

Mr. Chesbro has been with the Victoria Lumber and Manufacturing Company, Limited, for the past four years. He was in charge of their branch at Saskatoon, Sask., for two years, and during 1916 was in charge of their Winnipeg office. During the past three months Mr. Chesbro has been occupied at the mills at Chemainus, taking inventory and reorganizing the shipping force.

Mr. Chesbro has had a wide experience in the wholesale lumber business in British Columbia and the prairie provinces, and in the United States. For a number of years he was in the lumber business at Seattle, Wash., and prior to that had four years' experience in the yellow pine trade, both wholesale and retail, in Missouri. In addition to his wholesale and retail experience he has also had considerable mill experience, so that he is well qualified to look after the interests of such an important company as the one with which he is identified. Mr. Chesbro has already made himself extensively known to the trade in Toronto, and has proven to be a welcome addition to the eastern lumber fraternity.

Personal Paragraphs

Mr. E. R. Bremner, managing director of Watson and Todd, Ltd., in Canada, has been elected president of the Ottawa Board of Trade.

Mr. Hammond, representing Becker & Company, Limited, London, England, pulp importers, is on a visit to Canada. It is probable that he will locate in New York.

Mr. L. B. Beale, British Columbia Lumber Commissioner for Eastern Canada, returned to his office at Toronto on February 16, after having been on a visit of a fortnight to the prairie provinces and the Pacific Coast.

Mr. W. J. MacBeth, Toronto, has left on a business trip of from three to four weeks, during which he will call upon a number of important producing firms in the Southern States, with a view to enlarging his connections in that territory.

The Canadian Pulp and Paper Association has opened an office at 801 Shaughnessy Building, Montreal. Mr. A. L. Dawe is the new secretary, in succession to Mr. Roy Campbell, who has joined the staff of the Riordon Pulp & Paper Company.

Mr. B. W. Russell, Vancouer, B.C., visited Toronto recently and was greatly impressed with the increased interest that is being taken in Eastern Canada in British Columbia lumber products. Upon his return Mr. Russell stated that he expected a considerable revival in the lumber business of British Columbia, and believed that it would be the first industry of the province to recover a normal condition and to go ahead.

Mr. C. R. Whitehead, of Three Rivers, has been elected president of the Wayagamack Pulp and Paper Company, in succession to Mr. J. N. Greenshields, K.C. Mr. Whitehead is succeeded by Mr. J. W. Pyke as first vice-president, the other officers and directors being: Second vice-president, Mr. Alex. Pringle; directors, Messrs. J. N. Greenshields, K.C., G. H. Duggan, Hugh Mackay, Alex. McLaren, Henning Helin, and Sir William Price.

Mr. P. J. McCormack, a son of Mr. J. D. McCormack, general manager of the Canadian Western Lumber Company, Limited, Fraser Mills, B. C., has been appointed assistant representative at the eastern sales office of the company, Toronto, where he will be associated with Mr. L. D. Barclay, who is widely known to the eastern Canada trade. Mr. McCormack will cover the territory in western Ontario. He has been engaged in the lumber business for a number of years and has had an extensive experience at the mill, so that he is thoroughly familiar with the products and business methods of the company.

Dr. J. S. Bates, head of the Forest Products Laboratories, spoke on the "Utilization of Raw Materials from Our Canadian Forests" at the meeting of the St. James Literary Society, Montreal, on Feb. 15. He referred in detail to the various products—commercial and chemical—derived from the forest, and stated that while the methods prevalent in Canada for the utilizing of these resources were on the whole fairly comprehensive, we failed in the utilization of waste material. In this Canada would have to study closely the methods prevailing in Europe, where experiments have brought remarkable results.

Retail Trade Need An Association

Co-operation Required in Ontario to Fight Substitutes and Dishonest Customers and to Promote Use of Wood

At various times the Canada Lumberman has pointed out to its retail readers the opportunity that many of them are neglecting for promoting their business interests by forming retail lumbermen's associations. In an endeavor to start something of this sort in Ontario we wrote, not long ago, to about one hundred leading retailers in Ontario, asking for their views, and telling them of the fine results secured by retail associations elsewhere, notably in the prairie provinces of Canada. We almost hesitate to remind the retailers that only two or three of them thought it worth while to reply to our letter, but as one of them has recently written us very fully in favor of the idea of forming an association, we are inclined to open the subject again for further discussion, if any retailers wish to have it threshed out.

In our own minds there is no room for doubt on the subject. Such an association would be a fine thing in Ontario if taken up enthusiastically, and so we welcome the letter from the McLaren Lumber Company, Limited, of Brockville, Ont., and hope to hear from others. Here is what the McLaren Lumber Company's manager, Mr. Frank Glenday, has to say:

Brockville Ont.

Editor Canada Lumberman:

We are in entire sympathy with your efforts towards the formation of an association of lumber yards and planing mills.

We have no hesitation in stating that such an association is needed for the protection of the vital interests of one of the most important of our national industries.

These interests are menaced in various ways and from widely different sources. Take, for instance, the campaign which is unceasingly carried on for the promotion of the use of substitutes. The high fire loss per capita in Canada and the fact that lumber burns are shrewdly taken advantage of by the expert press agents of substitute materials, and an impression is created in the minds of the general public that "rubber" roofing is safe and that shingles should go into the discard; that brick and concrete houses should take the place of frame houses; that wooden lath are a poor foundation for plaster and dangerous, and should be supplanted by steel lath; that fearful and wonderful combinations of pasteboard, asphalt, wood pulp, etc., are preferable to lumber for 72 or more different reasons.

The advantages, real and fancied, of all this class of "better and just as good" are given wide publicity, and the lumber trade takes all the abuse and contumely "lying down." The next step in the merry game then is to have by-laws passed, wherever possible, ostensibly for fire protection, but in reality for the promotion of the sale of substitutes, few of which have merits entitling them to supersede the regular products of the lumber yard.

We all know that by the observance of reasonable care in construction of frame buildings, by the provision of fire-stops, and by having chimneys and stove and furnace pipes put up according to well recognized rules, a great reduction of fire loss could be made. We know that shingles can be cheaply treated with stain so as to prolong their life and prevent the surface of a shingle roof providing a lodgement for sparks and brands.

We know that fire-retardent roofs burn, and have burned, at times and places when old shingle roofs have withstood the fire. We know all these things and many more, but we seldom tell our story where it would do most good. Why? There's the rub!

The lumber yard interest in this province represents an investment of many millions of dollars in land, buildings, rolling stock, and machinery. The owner of each plant is boss of his own roost and architect of his own misfortunes, and has not yet been hit hard enough to find it absolutely necessary to look over the situation generally to see if the old maxim, "Union is strength," can be incorporated into the general policy of running a lumber yard. The result is that each one is open to the attacks of the substitute man, the wiles of the smooth gent who builds on a bluff and raises a mortgage on the building, but fails to pay up his lumber bill out of the proceeds, and we have known of cases where by fraudulent misrepresentations and concealment of facts large supplies of lumber have been obtained and not paid for. Then there is the question of bids being made on plans showing no details for contractors who cannot or will not take off their own quantities, and the ethically improper position of the architect being offender, party, judge, and jury all in one person—all of which have a tendency to cause the provider of lumber and mill work to do much work for inadequate remuneration.

Concerted action on the part of the Retail Lumber Association would not only make it possible to defend the interests of the trade against invasion and unfair treatment and possible loss, but the association could do something

that individual yards never can accomplish. The association could get out standard plans for houses, factories, farm buildings, garages, planing mill products. Facts could be collected, analyzed, discussed, and disseminated regarding the cost of various kinds of service rendered, and a fair basis could be arrived at for passing these costs along to the persons served. Action could be taken against certain wholesalers who have not, in the past, hesitated to sell at times direct to the consumer at prices not differing from those charged to the yards and so on.

We have only mentioned a few of the various matters which might profitably be attended to by the proposed association. Perhaps some of your subscribers will mention points we have left out, and we can, if you wish it, bring up many others on a future occasion.

We believe enough has been said to show that a real need exists for combined effort for the promotion of the best interests of an important producing and distributing industry and we are ready to help to the extent of our ability in the promotion and operation of the proposed retail lumbermen's association of Ontario.

We hope that a sufficient number will signify their readiness to join, so that the association may soon be formed and launched on its journey.

THE McLAREN LUMBER COMPANY, LTD.,
Frank Glenday, Manager.

Fire Protection on Upper Ottawa Limits

With a view to the better protection from fire of the limits in the Upper Ottawa, Mr. R. O. Sweezey, of Montreal, has outlined a scheme for the use of motor boats in place of canoes. The Upper Ottawa district is covered with a network of long stretches of navigable lakes, with short portages, making the work comparatively easy. For instance, there is one stretch of 235 miles with a portage which can be covered in half an hour, while there are other navigable stretches of from 40 to 80 miles long. The efficiency of such a scheme depends upon co-operation of the various limit owners. At present there is no such co-operative system, each owner depending upon his own efforts to protect the forests, and it is asserted that taken as a whole, these are very inadequate. It is evident that motor boats, with a speed of, say, nine miles an hour, can reach the scene of a fire more speedily than canoes, with a speed of three miles; and the quicker a fire is reached the better are the chances of limiting its extension. The idea is to equip the boats with pumps, which can be easily detached, so that work can be done either from the boats or with the mechanical apparatus carried into the woods. The greatest fire hazard is on Quinze Lake, which is in a settled district, and the plan provides for motor boats to be stationed there, so that the narrows can be guarded and fire prevented from crossing the water. It is also proposed to use the heliograph to signal the fires when detected.

Ontario Hydro Order for Chippewa

In our report of the contract given by the Hydro-Electric Power Commission of Ontario for timber for their development work at Chippewa, Ont., we unfortunately did not give some of the details accurately. The contract was obtained by W. J. MacBeth, of Toronto, and covers between 7,000,000 and 8,000,000 feet of timber, including hemlock, yellow pine, and British Columbia fir, varying from 2 x 4 in. to 12 x 14 in., and running from 10 to 40 feet in length. The order includes 3,300,000 feet of yellow pine, which is to be furnished by the Chicago Lumber and Coal Company, East St. Louis, Ill., and by Mason, Gordon & Co., Ltd., Montreal; 3,500,000 feet of hemlock, which is to be furnished by the Goodyear Lumber Company, Buffalo, N.Y.; also 170,000 feet of Douglas fir, which is to be furnished by Mason, Gordon & Co., Ltd.

Severe February Weather Slows Down U. S. Trade

During the second week of February the entire United States, with the exception of the Pacific Coast and certain points in the extreme south, experienced freezing weather, conditions which hindered the movement of cars, enhanced car shortage, and retarded building operations. The freezing line throughout the week included practically all territory as far south as Central Georgia, Alabama and Central Texas. The natural territory for distribution of lumber and shingles from the Pacific Coast was under storm conditions with periods of extreme cold and considerable snow. This refers particularly to Montana, North Dakota, South Dakota, Nebraska, Colorado, Minnesota, Wisconsin, Iowa, northern Illinois, and thence east.

Capt. A. G. Melford, a civil engineer, of Ottawa, who has had a great deal of marine experience, has worked out very complete plans for the towing of timber in turtle-backed rafts across the ocean in order to relieve the scarcity of cargo space for lumber. It is proposed to construct the rafts entirely of ordinary commercial sizes of lumber, without nailing or otherwise defacing any pieces, giving each raft a surface of slabs.

Stocks in England Commandeered

Army Council Takes Control of All Timber and Prohibits Trading Except Under Special License

In the Canada Lumberman of February 15th we published cable news from London, England, to the effect that the British Government had prohibited dealing, selling or purchasing in Great Britain, of any softwoods, except on old contracts. Copies of the two orders issued by the government have now been received and are as follows:

Order No. 1

The Secretary of the War Office, on February 5, made the following announcement:—

The Army Council have taken steps, under the Defence of the Realm Regulations, to assume control of all stocks in the United Kingdom of soft sawn timber, both planed and unplaned, including sleepers, in order to safeguard supplies for military purposes, and to prevent further inflation of prices. All dealings in stocks of timber of these descriptions is prohibited until further notice, subject to the proviso that deliveries may be made under existing contracts, or that sales may be made to any one person of not more than two standards at prices not exceeding those current during last week. The purchase of timber of these descriptions not already in stock in the United Kingdom is also prohibited until further notice. A further announcement will be made in the course of a few days.

Order No. 2

The following circular letter was, on February 7, issued by the War Office to timber merchants, and the announcement is made that dealings in softwood may be resumed forthwith subject to the conditions laid down:—

War Office, London, S.W.

Gentlemen,—I am directed to refer to the communique published in the press on the fifth instant, and to state that the Army Council has assumed control of all stocks of softwood, planed and unplaned, excluding pitprops, in the United Kingdom. It has been necessary to take this step owing to the urgent necessity of safeguarding essential supplies of timber for military purposes, and in view of the growing scarcity of tonnage it is imperative that existing stocks of wood should be conserved to the utmost, and that no wood should be consumed for any purpose not essential or where any substitute for wood can be utilized. To this end the War Department asks the loyal co-operation of all timber merchants as well as consumers of timber.

The effect of the Order is to give the Department possession of all stocks of such wood, and to require present holders to act in accordance with the instructions of the Department in regard to the custody and disposal of the stocks under their control. I am therefore to require you, pending further regulations which will be drawn up in consultation with the Timber Trades Federation, to observe the following conditions:—

(1) You are permitted to continue to make deliveries until further notice under existing contracts.

(2) You are permitted to sell lots of under one standard at your discretion provided that the price does not exceed that current for similar transactions during the week ended January 31, 1917, and provided that you are satisfied that the wood is required for urgent civilian needs.

(3) You are permitted to enter into fresh contracts for one or more standards for sale at prices not exceeding those current during the week ending January 31, provided—(a) that you obtain a certificate in the form attached from the intending purchased; and (b) that in regard to wood for other than government purposes you are satisfied that the wood is actually required for work of national importance. In cases of doubt you should refer to the Director of Army Contracts at Imperial House, Tothill Street, S.W.

(4) Holders of wood of the above description are permitted to use in connection with their own business such quantity as they now hold, but not to dispose of such stocks except in accordance with the above conditions.

(5) You will keep records of all transactions in such wood as from this date, which shall be open to inspection by any officer of the Department or by any person authorized for the purpose.

(6) Applications for licenses to buy and sell and to offer to buy and sell softwood, excluding pitprops not in stock in the United Kingdom, should be addressed to the Director of Army Contracts at Imperial House, Tothill Street, S.W.

The Department feels confident that it may rely upon you to act loyally in the national interest and to co-operate in carrying out such measures of control of the distribution and consumption of wood as may be decided to be necessary—I am, Sir, your obedient Servant, A. F. Wintour, Director of Army Contracts.

Lieutenant Kenneth A. Campbell Killed

Lieutenant Kenneth Archibald Campbell, a member of the Campbell Lumber Company, Weymouth, N.S., has been killed in action. He went over in August, 1916, and in September joined the Black Watch on the Somme front. Lieutenant Campbell was one of the six sons of Mrs. D. Campbell. All six joined the colors in defence of the Empire. One of the boys, Colin P. Campbell, won the military cross in the drive of last July. He was wounded four times.

Hemlock being used in Toronto Harbour Construction

Douglas Fir for Toronto Harbour—Nineteen million feet used

Canadian Structural Timber Strengths

Dominion Government Issuing Important Bulletin Showing Comparisons of Domestic and Imported Products — Douglas Fir's Fine Qualities

A report upon Canadian structural timbers has been prepared by the Forestry Branch of the Department of the Interior and will shortly be published in bulletin form. At present, when the merits of Canadian timbers are coming to be more fully recognized than in the past, this report is very timely. When normal industrial and trade conditions return and better transportation facilities are available, the use of Canadian timbers is certain to increase greatly, and this will be facilitated by more general knowledge of the suitability and value of these timbers, such as is furnished by the bulletin in question.

"The heavy structural species of Canadian timber, named in the order of merit and resources," the report says, "are:—Douglas fir, western hemlock, eastern hemlock, western yellow pine, western larch, red pine and eastern larch. Beside the above, the spruces are used largely in the east for all except the heaviest purposes, and certain pines, true firs, and cedars are sometimes employed. These woods, however, are in many cases more valuable for other purposes, and will probably be less used for structural purposes as the stronger woods become more available."

Mill Construction

Discussing mill construction, the bulletin says:—"Slow burning or mill construction consists in so disposing the timber and plank in heavy solid masses as to expose the least number of corners or ignitable projections to fire, to the end also that when fire occurs it may be most readily reached by water from sprinklers or hose. Special care is taken to separate different floors by stops and to see that all spaces between floors or partitions are so protected as to allow no draught in case of fire. A mill built with these ideas in view, when protected by automatic sprinklers and sufficient water supply, offers one of the best fire insurance risks, and may be insured at a minimum rate.

"Although wood is combustible it has been shown repeatedly that most fires are due to the contents of a building rather than to the material of which it is constructed. Timber posts, for example, offer more resistance to fire than either wrought-iron, steel or cast-iron pillars, and in mill construction are preferable in many respects. Cases are known where 8 by 10 inch wooden timbers were only charred in a fire that twisted 10-inch steel beams to a degree which required rebuilding. Therefore, although under certain circumstances it may be better to use concrete or other non-combustible materials, it appears that a properly constructed and protected mill of wood is no more liable to destruction by fire, under ordinary conditions, than a mill built of any other material.

"The use of wood in such construction is attended by many other favorable considerations. (1) It has a low first cost. (2) It offers better insulation to heat and cold than concrete. (3) It is more comfortable and more nearly noiseless. (4) It is subject to alterations in case of any desired change to better adapt the mill space to changed conditions in manufacture.

"Comparing mill construction with the ordinary type of wooden construction it is found that there is but little difference in cost between the two; the fire insurance rate for the former is one-half the latter, if both are sprinkled; and again, the former is better adapted to any changes in occupancy. When a building is being considered, not only should a competent architect be employed, but it would be

Douglas Fir used in shipbuilding in British Columbia

Mill construction, showing timbers and laminated Flooring

well to find out from the insurance companies the standards they require to give the minimum insurance rates. This very brief description of mill construction is given to illustrate the fact that wood can be used to great advantage for certain types of buildings which must carry heavy loads and must be well protected from fire."

"Douglas fir," the report says, "is at present one of the most important of Canadian woods, and within a few years it will probably be the most widely used and valued of Canadian timbers. It is the largest structural timber growing in Canada or the United States. In Canada it is found in British Columbia and to a limited extent in Alberta. Trees have been measured up to 380 feet high, with a maximum diameter of 15 feet, the largest trees scale as high as 60,000 feet, board measure. This great size places the timber in the highest class for large timbers free from defects.

Douglas Fir's Many Virtues and Uses

"The wood is one of the hardest, heaviest, stiffest, and strongest to be found in Canada. The sapwood is usually narrow, being not over two inches wide. The heart wood varies in color from a decided reddish tinge to a light yellow. Timber from the eastern limit of its range, from second-growth, or from the centre of old trees is likely to be coarse-grained and red, but most of the coast variety produce the fine-grained, clear wood, of a yellow color, that has made Douglas fir famous. Absolutely dry it varies in weight from about 24 to 34 pounds per cubic foot, with an average of approximately 28 pounds. The dark summer-wood is well developed, is hard, flinty, and clearly marked, while the spring-wood is soft and much lighter in both color and weight. The number of rings per inch is rarely less than eight, and is commonly from twelve to sixteen. In general, wood having less than eight or more than sixteen rings per inch is weaker than that ranging from eight to sixteen. It is usually of uniform growth and comparatively free from knots and pitch. The average moisture content in green-sawn timber is up to 40 per cent. and is fairly evenly distributed throughout. In air-seasoned timber the average moisture may be reduced to less than 20 per cent., with less near the surface, but more in the middle of the stick. Rapid drying of the surface produces checking, but drying, properly handled, produces a fine, sound, clear wood.

"So far as structural timber in the Dominion is concerned Douglas fir is by all means the most important, although there are several other species which produce very good structural timber. According to recent estimates the Commission of Conservation, the total supply of merchantable Douglas fir timber is about 75,000,000,000 feet, board measure, and since the tree grows satisfactorily under reforestation there is little reason to believe the supply will be exhausted for many years. In fact, proper protection should insure a perpetual supply.

"Utilization.—Douglas fir is manufactured into almost all forms known to the sawmill operator, and a very large amount of the wood is also utilized in the form of round or hewn timber. In building trades it is most important, being used for beams, columns, and heavy flooring in mill construction, as well as for all kinds of dimension stock, joists, floor beams, rafters, flooring, siding, and finish of all kinds in general construction. For bridge trestle, and harbor work, Douglas fir is superior in many ways to any other Canadian timber. It is largely used by the railways in the form of ties, piling, car and bridge material. It has long been the most important timber for boats and ships on the Pacific Coast, being suitable for both outside and inside work, especially for decking, planking, keels, yards, ribs, and finish. Increasing amounts of Douglas fir are being used in furniture making, and in this line it is particularly adapted to "mission" furniture. Tight and slack cooperage, tanks of all kinds, conduits and water pipes, paving blocks, boxes, and pulpwood may be mentioned as further illustrations of its utilization.

"Although the properties of Douglas fir enable it to be employed in such a variety of ways, it is probably most widely known as a structural material. For this purpose it is inferior to no other wood, and its straight, clear trunks can supply timbers of the largest size and highest quality."

Stands up Well in Comparative Tests

Comparing Douglas fir with the southern pine, the bulletin says in part:—"It is important to note that Douglas fir is lighter than longleaf pine of equal quality, and on this account as well as on others it is entirely wrong to attempt to judge of the value of a Douglas fir timber according to all the specifications laid down for prime longleaf pine. Results of comparative strength tests of Douglas fir and longleaf pine at the United States Forest Products Laboratory show that for practically all structural or building work Douglas fir is the equal of southern pine. Moreover, the wood of Douglas fir averages twenty per cent. lighter than southern pine, a fact of considerable importance in some types of construction."

The bulletin contains extensive results of tests of Douglas fir and southern pines, showing clearly the fact that Douglas fir, in practically all respects that are of importance, is the equal, and in some cases the superior, of the imported woods. These tests were made by the United States Forest Service and by the Forest Products Laboratories of Canada, the results being practically similar.

The bulletin also contains interesting references to the other important Canadian timbers, including western hemlock, western larch, eastern hemlock, western yellow pine, tamarack, red pine and the spruces. A section of the bulletin also discusses the grading of timbers, describing the various defects and their importance and including examples of the chief grading specifications in use by engineering societies, railroads and lumber associations.

St. Maurice Limits Well Protected

Annual Report of Association Shows Successful Operations During 1916—Aeroplane Patrol Recommended

The most striking statement in the report of Mr. Ellwood Wilson, president of the St. Maurice Forest Protective Association, presented at the annual meeting, held at Three Rivers, was a suggestion that aeroplane patrols be introduced, with a view to increasing the efficiency of the patrol and to lessen costs. This, Mr. Wilson said, has been tried successfully in Wisconsin, and "I have discussed it with several aviators who have returned from the front, and there are no practical difficulties in the way of its introduction. The patrol route might be from Grand'Mere to La Tuque, following the St. Maurice River; from La Tuque to the lakes, on the head of the Croche River, and from the head of the Croche River to La Loutre dam; the next day from La Loutre dam to the Mountain lakes, and from the Mansuan lakes to the head of the Mattawin River and via that river to Grand'Mere again. In case of a fire being discovered the rangers could descend on the nearest lake and put out the fire; but if it had already assumed too large proportions they could, within an hour, be at a point from which help could be obtained. Not only would the cost of patrol be reduced, but the efficiency would be very much increased, as fires can be seen from a great distance, sixty miles or more, and can be located exactly and reached before they become dangerous. Photographs of the whole valley could easily be taken and accurate maps compiled of the sections which are still uncharted.

Mr. Wilson stated that the past year had been the most successful in the history of the association. Not one settler's fire had been recorded in the 1916 season. In the past one of the most frequent causes of fires had been the operations of river driving crews, but since the logging departments of the constituent companies of the association had co-operated with them, this had been entirely eliminated.

Mr. W. R. Brown, of the Brown Corporation, had worked out a practical scheme of timberland insurance against fire, and the president recommended that the association appoint a committee to study it and report as to whether it would be a good thing for the association to take it up and insure each of the constituent companies mutually. This could be begun on a small scale, and if unsuccessful could be dropped without much expense to any of the members. The end of the season showed the association to be in better shape than ever before.

Mr. H. Sorgius, in his financial report, stated that notwithstanding unfavorable conditions, the association had been able to reduce the expenses of fire fighting, the cost being only 35 per cent. of that of 1915. For the season of 1916 there were listed with the association 7,182,776 acres and over 1,000,000 acres of government land not under license and lots taken out by settlers. During the season 200 fires had been reported and extinguished, of which 173 were extinguished without extra labor. 1916 was the first season under the new permit system law regarding the disposal of settlers' slash. Five years ago the introduction of the system, owing to the attitude of the settlers, would have meant serious fires, but now no trouble whatever was found in the introduction of those measures. The number of fires caused by settlers clearing land had been greatly reduced since the association was organized, as shown by the following comparison:—1913, 151 fires caused by settlers; 1914, 80 fires; 1915, 41 fires, and 1916, nil. The settlers in general had co-operated with the association in the work. Between April 19th and October 21st two hundred fires caused as follows were extinguished: Railways, 77; unknown, 51; laborers at dam, 28; lightning, 17; fishermen (not members of clubs), 12; berry pickers, 8; jobbers, 2; explorers, 2; portagers, 1; trappers, 1; and smudge, 1. The new amendment passed by the Provincial Government obliging every male between the age of 18 and 55 years to assist in extinguishing forest fires, at the request of an authorized fire-ranger, at a fixed wage, had been a source of great help. The money spent in preventing, instead of fighting fires, was the best investment, as shown by the fact that an increase in patrol expense of .0005 (five ten-thousandths of a cent) per acre saved the association in two years $11,000 in fire-fighting costs, not counting the timber saved.

The following officers and directors were re-elected: Mr. Ellwood Wilson, president; Mr. Robert F. Grant, vice-president; Messrs. S. Laurence DeCarteret, J. M. Dalton, Charles LeBrun, and S. H. Dansereau, directors; Mr. H. Sorgius, manager and secretary-treasurer.

The Golden Rule a Good Trade Maxim

Co-operation and "Mind Your Own Business," Though Seemingly Antagonistic Ideals, Work Together to Promote Good Feeling in Trade

At the weekly meeting of the Lumbermen's Section of the Toronto Board of Trade on February 23rd, Mr. A. E. Eckardt, of the R. Laidlaw Lumber Company, Toronto, delivered an interesting address on the subject of "Trade Ethics." Just as soon as we failed to do our duty one to another in matters pertaining to trade, a violation of trade ethics followed, Mr. Eckardt said. Each individual was responsible to himself and to the trade for carrying out his duty in this regard and doing his share to maintain the ethics of the trade. Between what we were and what we did there was a close affinity. In our business relations with one another there existed what might be termed a triple alliance, between the manufacturer, the wholesaler and the retailer. This alliance ought to be maintained in such a manner as to be of benefit to the trade generally.

Having discussed the nature of trade ethics, Mr. Eckardt proceeded to illustrate it with a few examples. The first was a case in which a wholesaler was informed by another wholesaler that a certain stock was of very poor grade. When he approached the manufacturer of that stock and suggested to him that it was not worth as much as he asked for it, and that another wholesaler had told him that it was poor stuff, with which he would have nothing to do, the manufacturer showed him a contract whereby that wholesaler had purchased the stock. The wholesaler would naturally have felt that his brother wholesaler had been guilty of a serious violation of trade ethics in informing him that the stock was poor grade, and this would really have been the case, but it happened that the actual purchaser of the stock was not the same individual as the one who had criticized it, and the latter had not known that the purchase was being contemplated by his firm.

A Case in Point

Another case was one in which a wholesaler, within the past two months, went to a mill, and knowing that the stock was sold took the trouble to look it over and told the owner that it was splendid stock and that no doubt he was getting a good high price for it. It was hard to understand how an honorable wholesaler could adopt such a line of conduct. This mill man passed the information on to the wholesaler who had purchased the stock, no doubt hoping that the next cut would be sold at a better profit. Such conduct was very detrimental to the interests of the trade in general. It seemed to Mr. Eckardt that the best maxim for guiding their conduct was just to "mind your own business." If they could do this there would not be so much violation of trade ethics.

Not long ago there had come to his notice another case where a wholesaler sent out a list of prices, and one of these lists went to a manufacturer from whom the Laidlaw Company were buying. This manufacturer naturally told them that they would have to pay more for his stock next time. Mr. Eckardt believed that the wholesaler in this case had not been to blame, that he had not realized the effect of sending his lists out in this manner. However, they all had to do the best they could, and it was not in the interests of the wholesaler to pass information on to the mills in this way. It all re-acted upon the wholesale trade. While they might make one buyer pay more for their stock it followed that they would have to pay more themselves for some other stock.

Between wholesalers and retailers there were also many jarring elements, particularly in cases where wholesalers sold to contractors in carload lots. He believed that this was decidedly wrong. A retailer had a vested interest to take care of and if the contractor wished to buy at a lower price he should confine himself to retailers. Some lumbermen maintained that selling in carload lots was purely a wholesale business, but he would like to draw the line a little closer and give the retailer all the protection he could.

Retailers Showing the Way

As between retailers there were many things in common, in regard to which, if they did their duty to one another their business affairs would run along much more smoothly. Collections, for instance, afforded an interesting example. In Toronto, thanks to the Retail Credit Bureau, there was a much better feeling today than there had ever been before. Heretofore, it had been the practice of some retailers in Toronto to give one another false information, in the hope that the other dealer would commence furnishing stock to a doubtful party, and thus the chances of getting something out of him would be a little better. Today this evil had been obliterated by the Credit Bureau, and he hoped that the wholesalers would see their way to forming a similar bureau in their own interests.

Of course, violations of trade ethics were bound to occur from time to time. If there were none they would have reached a state of perfection, and this was impossible. But it was their duty to try to eliminate these violations as much as possible. How could this be done? In his opinion co-operation would solve the problem. They were living today in an age of great changes. The war was producing changes that were creeping in upon us unseen. Literature, arts, sciences, and even religion, would be changed. The science of merchandising would be carried on in an altogether different manner. The spirit of seeking to crush one's competitor would be eliminated. Co-operation would be the governing power in the future, and duty the motive power in the science of merchandising. The benefits derived from co-operation were such that they would look back over the past and wonder why they had not adopted it long ago. Not many years ago the great steel trust in the United States had been seeking to put their business in such shape as to crush out all opposition. They found that this was costing them too much, and today they would rather foster and assist those competitors and give them a certain amount of business. The golden rule, "do unto others as you would that they should do unto you," held good. They ought to remember this in business and make the golden rule the dominant factor in their transactions.

At the conclusion of Mr. Eckardt's remarks a brief discussion followed, in which Mr. J. B. Reid, Mr. J. G. Cane, and Mr. John Donogh took part, all complimenting Mr. Eckardt on his analysis of the situation and agreeing with his ideas in full.

Piling Lumber to Keep it Straight

By Fenwic Faulkner

Thousands of dollars are lost every year through waste caused by the poor piling of lumber. The object of this article is to give a few simple instructions in the art of piling lumber, and prevent, to some extent, not only the waste of this natural product, but of the human effort that has been expended to make it what it is. And in doing this I am quite aware that many lumber pilers who will read this know as much about piling lumber as does the writer, but—"and here's the rub"—they don't act on their knowledge. That "men do not require so much to be informed as to be reminded" is true here as well as elsewhere.

Every piler knows that if lumber is to come out of a pile straight it must be made straight and kept straight while in the pile; and yet where is he who will throw to one side a cross-stick that happens to get mixed with the lot he is using merely because it is slightly thinner than the rest? And yet this is a most important item in piling. If but one cross-strip is only one-quarter inch thinner than the others, every board in the upper layer will sag to that extent and be that much out of straight. I think I hear someone say that is a very small matter, and so it is to the man on the pile, but not to the man in the factory. If this sag is in the centre of the board, the effect is to spoil it for many kinds of work, such as buffet and long table tops. It is true that some of this bend may be taken out (or the effect of it be reduced) on the jointer, but see the amount of time that is wasted to do this, to say nothing of the waste of lumber, because it requires very little sag in the centre of a board to render necessary a reduction of one-quarter inch or more in thickness before it is made straight. And all this trouble because one man allowed one of his mental faculties to lapse for a moment.

If this much can be said of the man who uses one "off" strip, what shall we say of the man who goes out with a truck-load of strips of various thickness to pile lumber, either for air-drying in the yard or on cars for the kiln? A hint to the wise is sufficient.

Strips for piling lumber should not be cut from "any old stuff." If there is some stuff lying about that is too badly warped and twisted for manufacturing purposes and one needs piling strips he may be tempted to use this stock. But "yield not to temptation" here as elsewhere, for to do so will be costly. Straight strips cannot be cut from crooked lumber, and lumber will not lie straight on crooked strips.

Pile each length by itself. It is a common thing to go into factory yards and see long ends of boards projecting out over the bulk of lumber in the pile, with nothing to protect them from the elements or prevent them being spoiled through warping or checking. This alone is a great source of waste.

Do not be afraid to use plenty of strips. What can be done in this way has been demonstrated in the case of gum lumber, which for many years was in ill-favor because of its tendency to warp. Two and three strips are now used in the space where formerly only one was used. Of course, all the credit cannot be given to the use of extra strips, because the extra-thorough drying of the lumber and its proper seasoning after leaving the kiln and before entering the manufacturing

process have contributed in no small measure to the success which has attended the efforts of those interested to make gum workable and a popular cabinet wood. But all these efforts would have been in vain had not plenty of strips been used to relieve the strain on the lumber caused by uneven contraction during the period in which it was drying and adjusting itself to new conditions.

Do not pile12-foot lumber with only three strips if you want the highest possible results. One strip more will take very little extra time ,and may prevent the destruction of much good material. If the lumber is to be used in long lengths, it would be well to put the strips as close as three feet apart. I know a factory that received an order for a 14-foot table, the top of whch was to be finished 1⅛ in. thick, and, although they had plenty of stock that measured full 1½ in., they could not find a board that promised to be straight when dressed to the required thickness, and two boards had to be glued together to get the desired result. This because the stock had not been properly piled.

Give the boards a slant of approximately ½ in. to the foot and place the top cross-strips flush with the ends of the next lower layer of boards, allowing the next upper layer of boards to project at the top end about 3/16 in. This will minimize the danger of damage from storms beating against this end. If your lumber varies in length as much as one foot or more, separate the difftrent lengths as much as possible; and whether the long or short boards are placed in the bottom of the pile is a matter of choice. There are arguments in favor of each, but the writer prefers to put the long ones in the bottom.

In what direction should the ends of the boards point when in the pile is a question the writer does not remember ever having seen discussed. Should they point to the east and west or to the north and south? Some may think it makes no difference, but it does, and has an important bearing on the proper seasonnig and drying of the stock. There is but one object to be obtained, and that is the freest possible circulation of air through the stock, which is best obtained by having one open side of the pile facing the direction from which the prevailing winds blow—that is to say, if the prevailing winds come from the south, the ends of the boards should point east and west. From this it will be seen that geographical location must settle the question.

A good covering for the piles is made of frames covered with galvanized iron, tied down at the corners when on the pile. If well braced, these frames, though large, may be made light and strong and easy to handle. They have the advantage over most other coverings that they afford the top lumber complete protection against rain.

I have left the question of foundation for lumber piles to the last, not because it is the least important, but because of the very opposite reason. All efforts to pile lumber will go for naught if the foundation is not right. There is no better foundation than cement pillars. In some of the Northern sections I have seen these pulled out as unsatisfactory, but they had been sunk in low, soft ground, and only to a depth of about 2½ feet, whereas 4½ feet should have been the minimum depth to make sure of escaping the frost line. If the lumber yard is low and damp, fill it in. If this is not practicable, then raise the pile at least two feet above the ground, to prevent mildew.—The Woodworker, Indianapolis.

United States Lumber Production for 1916

Incomplete reports received indicate a probable lumber production in the United States approximately 11.2 per cent. greater in 1916 than in 1915, according to an announcement made by the United States Forest Service. This estimate is based on preliminary figures compiled in connection with the collection of sawmill statistics in cooperation with the National Lumber Manufacturers' Association. For the United States as a whole the increase in production, as shown, is 11.2 per cent. For the Eastern States alone the increase was 7.9 per cent., and for the other states shown the increase was 16.7 per cent. Taking the estimated total production of thirty-eight billion feet in 1915 and apply the computed per cent. of increase to the output for 1916 the cut for the year becomes forty-two and one-quarter billion feet, or within three and three-quarters billion feet of the record production of forty-six billion feet in 1907.

Northern Wisconsin Loggers Organize

An organization has been formed of northern Wisconsin loggers, to be known as the North Wisconsin Loggers' Association, which will discuss matters pertaining to operations in the woods, with regular meetings during the entire year. The membership may include mill owners, and timber holders represented by their logging superintendents and managers, and also by contractors. The new association will work in harmony with the lumber manufacturers, and is a step toward the thorough organization of the entire lumber industry for more efficient operation. Committees have been named to study such problems as safety for workmen, commissary, to study the cost of feeding, production, and to investigate efficiency methods. The plan is to have small regional associations to study the same problems in their own local fields.

Burning the Slash After Logging

Ten to Twenty Cents an Acre the Average Cost—Early Spring the Best Time—How the Work is Done

By B. W. Lakin*

Superintendent of Log and Land Department, Crookston Lumber Company, Bemidji, Minn. Address delivered at annual meeting of Canadian Lumbermen's Association.

I was asked to come here and tell you how we burn our brush, or slashing, in Northern Minnesota. It has been the policy of the Crookston Lumber Company at Bemidji, Minnesota, for the past ten years, to burn the slashings in the spring, on the lands we were logging.

We endeavor to do it as economically and efficiently as possible, and it has become such a system with us that we consider that the benefits more than repay us for the expense. Our brush, or slash, burning is all done in the spring, and early, before the fire is liable to spread to adjoining lands, as early spring fires will not run in standing timber.

Our country is rolling, with practically no stones. We are logging white and Norway pine, spruce, tamarac, and balsam; about 75 per cent. white pine, 10 per cent. Norway, 10 per cent. spruce, and 5 per cent. tamarac and balsam, with an average of about 8,000 feet to the acre.

We take, of the above-mentioned timber, everything that will make a log 6 inches at the top and 10 feet long. There is still left on the land a great deal of other kinds of timber, such as white birch, poplar, maple, and elm, and in burning we are anxious to save all the timber left standing, to be sold later with the land.

We own nearly all the lands from which we are cutting timber, and after the pine timber has been removed our land is valuable for agricultural purposes, and we are careful to preserve the timber left, as well as to do away with any serious fire risk.

Now, we start out logging with the idea in mind that the "brush is to be burned."

In sawing the timber we use a crew of four men—two for the saw, one to undercut and mark the log lengths, and one to trim off the limbs and pile them. Then in the spring, as soon as the snow is off, we send our men in to burn the slashing. They, as a rule, do not have to do any more piling of the brush, and we are careful not to wait until it gets too dry. If there is any danger of the fire leaving the land we are operating on we first burn around the outside of the slashing. We find that by burning early and with care the fire does not injure the standing timber, nor does it materially affect the small undergrowth. Where a tree has been felled off by itself we do not attempt to burn the brush, for it alone constitutes no fire risk.

We have a state law that requires that the brush be burned before May 1, and we find, from experience, that, unless it is a very late spring, it is unsafe to burn after that, and if we do burn after that it is done under the supervision of the forest ranger, and special care is given that the fire is not allowed to get beyond control.

The manner in which the burning is done all depends on the instructions sent out from the main office. If you instruct your men to be careful, they will, no doubt, do it, but if you issue instructions that the brush be burned as cheaply as possible you will have some big fires that will do a lot of damage—that we know from experience, for even in the fall of 1909, when we had such disastrous fires in Northern Minnesota, there was no trouble or damage at any of our operations, though we log over 10,000 acres each year.

Our law has worked out very satisfactorily to us. Our men are all instructed to co-operate with the forestry officials, and we have had a great deal of help and advice from them, and never any trouble. But, to do right, you must give it considerable supervision, and have it in mind during all your logging operations, and not wait until too late in the spring to do your burning, or you are liable to have a fire you cannot control.

We use Lidgerwood cable-way steam skidders in most of our operations, and horses and logging railroad in the balance. We are doing no hauling with logging sleighs. We use the same brush burning methods at all our operations.

The expense is not great. It need not cost more than 50 cents per acre, and the average need not be over 10 to 20 cents per acre to do the burning in the spring.

Our men use a kerosene torch made out of 1½-in. gas pipe, with a cap on one end and a reducer from 1½ in. to ½ in., with a piece of ½-in. pipe, about 10 in. long, in it on the other end, filled with wicking. The large pipe, filled with kerosene, will make a torch that will last two or three hours, and is easily handled.

In conclusion, I would suggest that to do the burning successfully and cheaply you must arrange your work with the idea in mind of burning the slash properly. Co-operate with your forestry officials. They will always have some good ideas that you can use to advantage, and after you have burned the slash successfully for a season you will not care to go back to the old system of leaving the slash as a firetrap.

*Superintendent of Log and Land Department, Crookston Lumber Company, Bemidji, Minn. Address delivered at annual meeting of Canadian Lumbermen's Association.

Logging Operations in Newfoundland

Encouraging Outlook for Present Season—Higher Prices Predicted—Pit-prop and Pulpwood Trade Conditions

By J. Wilfrid McGrath

At the termination of the codfishery around the shores of Newfoundland and along the coasts of Labrador, about the middle of October, hundreds of men engaged during the summer months at fishing proceed to the lumber woods and engage at logging and other work in connection with lumbering until about the middle of April, when they return to take up fishing again; so that most of the fishermen of Newfoundland are also good lumbermen—in fact, as "choppers" and "log makers" they have few superiors. In this way a large number of the lumbermen in Newfoundland are different from United States and Canadian lumbermen, who, when the "cut" is finished and the "drive" is in, repair to the neighboring towns and generally enjoy themselves, or take a long rest until the next lumbering season again. Nothing like this occurs in Newfoundland. Even the river drivers, when all the logs are assembled at the mills, generally find some suitable employment around the mills or in the lumber yards, or go back to the woods, after a few days' rest, to locate camps, open roads, repair rivers, build sheer dams, or do some other necessary work in connection with the industry.

The Outlook for Logging.

The logging outlook in Newfoundland for the present season is most encouraging. The number of men employed here at logging this season will be the largest on record. Owing to the scarcity of pulp and paper in the United Kingdom and the attractive and still increasing prices prevailing, all the pulp and paper mills are placing additional crews, so that the cut of pulpwood will undoubtedly be the largest ever made in Newfoundland. Last season many of the sawmills, particularly the smaller ones, found it paid better to cut and export pit-props to the English collieries than to go on sawing lumber. As a conseqeuence, there is little or no sawn lumber in the country at present, and there is a very large local demand, as well as foreign. All the sawmills, therefore, will put on full crews, and in many cases extra ones, to make up for last year's shortage. In addition, large numbers of men will be engaged in cutting pit-props, though not so many as last season, because the government, during last winter's session of parliament, passed an act forbidding the cutting of this class of wood on what is known in Newfoundland as the "Fishermen's Reservation," extending from tidal waters three miles back, around the bays and coasts of the island. With such a law in force it will be necessary for those engaged in cutting pit-props to go back at least three miles from the sea coast, thus making the haul much longer. Inside of this three-mile limit all timber lands are privately owned, and the owners will demand a fee, or so much per cord or thousand feet, for any lumber taken from their property, all of which will materially help to advance the price of lumber. Hitherto the three-mile limit in Newfoundland was a kind of a "No Man's Land." Everyone could cut indiscriminately from that area any timber required. Now even the fishermen and settlers are prevented from cutting any timber on this land for exportation. They are allowed to take all the timber they need for the building of houses and other domestic purposes, for the construction of vessels and boats, and for all works in connection with farming and fishing. As a consequence, it is incumbent upon English buyers of pit-props to arrange with the owners of timber limits for such suppiles, or to purchase certain timber lands where they may carry on operations. For this reason next season the price of pit-props will be considerably higher. By an act of parliament, also passed last session, the price to be paid for unbarked pit-props at shipping point cannot be less than $4.50 per cord and $5.50 for barked wood. The loading cost is from $1 to $1.50 per cord, according to shipping location. There is also an export or war tax of $1 per cord, payable to the government. Taking all this into account, together with the usual loss from booms, rafts, and scows, crooked and unsound pieces thrown out, and the additional charge paid to owners of timber areas where wood is cut, contractors will have to ask $10 per cord f.o.b. Newfoundland ports next season.

The local value of pit-props cut in Newfoundland is estimated at $2,000,000. Some 250,000 cords were cut, which cost, at the very lowest, $8 per cord f.o.b. Now that Newfoundland wood has been found to be eminently suitable for this work, care should be exercised to encourage the industry, which, once judiciously and soundly established, should thrive and become a great asset to Newfoundland and Labrador long after the war is over.

Wages for lumbermen have also been fixed by law for the first time in connection with the lumbering business of Newfoundland. The minimum amount is $30 per month, with board and lodging. Owing to large numbers of our young men having joined the army and navy since the outbreak of the war, labor has advanced in price and become scarce. The prices now prevailing locally for lumber, etc., are as follows:

Lumber, Juniper	$25.00 to	$30.00	per	M.	feet
Shingles, cedar, No. 1	4.50 to	5.50	"	"	pieces
Shingles, fir, No. 1		2.50	"	"	"
Laths		4.00	"	"	"
Palings	2.00 to	2.60	"	"	"
Spruce boards, No. 1	20.00 to	25.00	"	"	feet
Spruce plank, joisting, studding, and scantling	25.00 to	30.00	"	"	"
1 in. P. and T. spruce flooring	25.00 to	30.00	"	"	"
1¼ in. P. and T. spruce flooring	28.00 to	32.00	"	"	"
1½ in. P. and T. spruce flooring	28.00 to	32.00	"	"	"
Pine boards (clear)	50.00 to	60.00	"	"	"
Hardwood plank (birch)	30.00 to	35.00	"	"	"

In comparison with the early days of lumbering, wages, conditions, and surroundings of our lumbermen have vastly improved within recent years. Some years ago choppers and teamsters would be going and coming all through the logging season. There was always dissatisfaction as to the amount of wages paid, the quality of provisions in camp, inferior cooks, camp surroundings, and other matters, so that contractors could never tell when the crowd would "pack up and get." All this has been changed in recent years. The men go to the woods now in October and November and remain until the "cut" is finished, and large numbers until the drive is in. Not only are the wages good, but camp surroundings and conditions have vastly improved. Contractors and mill owners are obliged by act of parliament to give their men a properly adjusted diet, with good, comfortable, healthy sleeping quarters, under sanitary arrangements, so that, all round, the man with the axe gets a good, square deal.

If the conditions of the lumberman are improved, so also are matters for the contractor and mill-owner. For deserters, slackers, and runaways the law is very strict. In fact, such cases are very rare now, and, therefore, under ordinary circumstances, contractors can estimate pretty correctly from day to day and week to week the amount of lumber the season's cut will amount to.

Michigan May Adopt Gigantic Reforestry Scheme

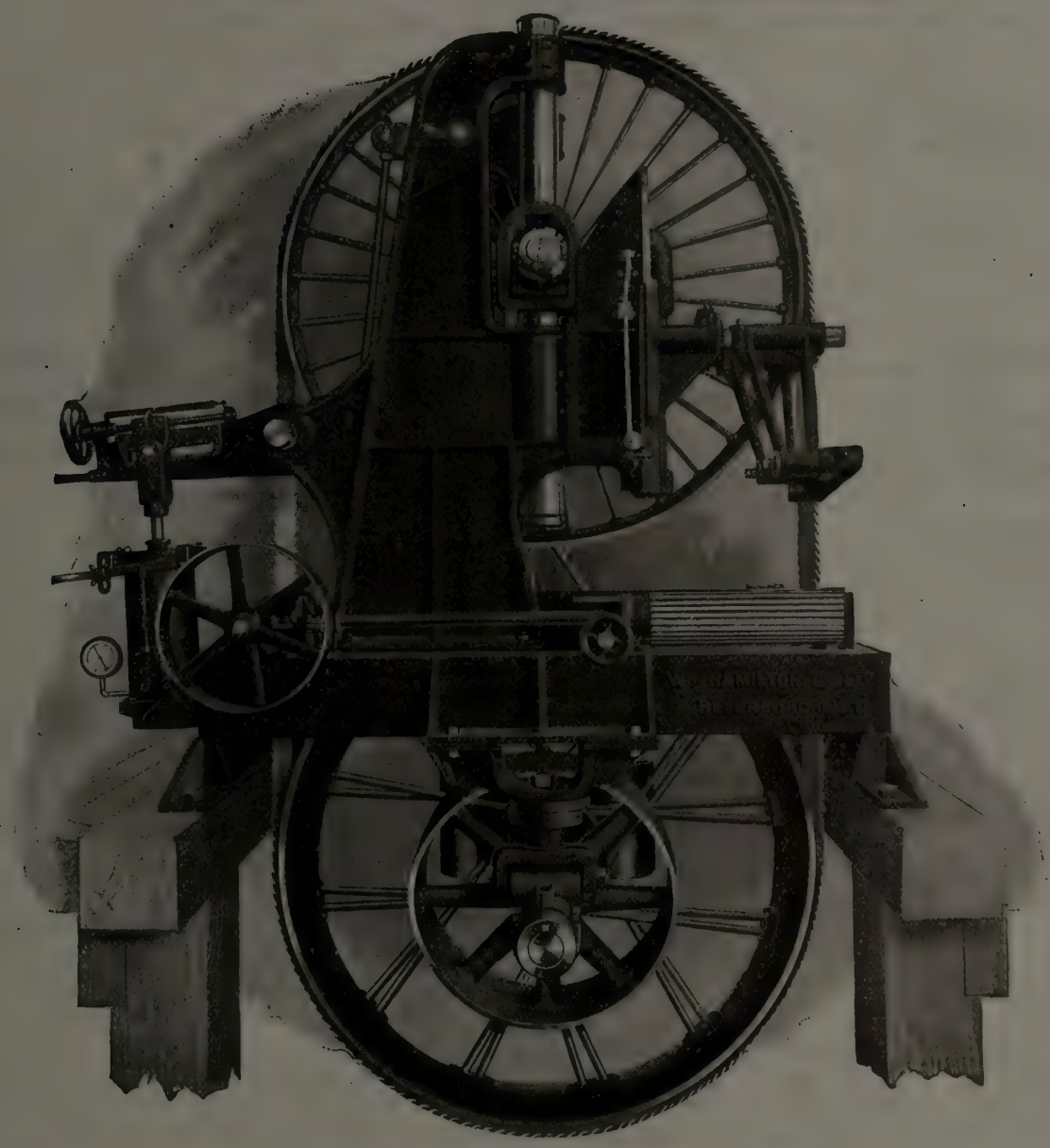
By asking the Legislature of Michigan to increase its annual appropriation to $150,000, the Public Domain Commission is preparing to carry into effect the most gigantic forest conservation, or tree-planting plan, that has ever been tried in North America, and, so far as known, far beyond any projected by a foreign nation. The plan has the backing of the members of the commission and is also approved by the forestry experts at the University of Michigan and the Michigan Forestry Association. The state now owns, in round numbers, 540,000 acres of land. It is proposed to plant trees at the rate of 4,500 acres per annum, and in what is known as a period of rotation, consisting of sixty years, all of 270,000 acres can be planted. One-half of the other 270,000 acres will in the next thirty years, under protection, produce sufficient material, which, by cutting, will clear a gross revenue of $15 per acre. Beginning with 1947, it is thought advisable, according to the plan, to cut at the rate of 4,500 acres per annum and plant it at the same rate with the more valuable pines. By 1977 the remaining 135,000 acres will be treated in a like manner, so that the initial restocking of all forest lands will have been completed in 2007.

War Department Using Canadian Woods

A revised list of articles required by the British War Department, in the manufacture of which it is now permissable to use Canadian red and white pine and Canadian spruce, has been received by the Department of Trade and Commerce, Ottawa, and is published in the "Weekly Bulletin" of February 19. The list includes a large variety of articles, such as poles, screens, boxes, tables, shelters, trays, desks, refrigerators, slats, stools, linen presses, packing cases, etc., showing that Canadian wood has been recognized very completely as valuable material for all important war uses.

After a number of conferences between the Dominion Government and representatives of the Canadian paper manufacturing industry an agreement has been reached by which the price of newsprint paper during the present year will be fixed at 2½c at the mill for rolls. It is stated that paper manufacturers intend to pool their business so that the profit made on paper sold in the United States can be shared in order to prevent the loss that manufacturers selling to Canadian consumers claim they will make under the fixed price arrangement.

HAMILTON
Steam Tension Band Mill
Single and Double Cutting



Special Features of this Band Mill:

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(2) Unbreakable saw guide raised and lowered by steam—**first used on our machine.**
(3) Great saving in saws—actual tests have proven saws have a longer life on this machine.
(4) Both top and bottom wheels instantly aligned by screw adjustment.
(5) Takes saws 12 in. to 14 in. wide.
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(7) Built by expert workmen in a plant that has been manufacturing high grade sawmill machinery for sixty years.

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William Hamilton Company, Limited
Peterborough, Ontario

Geo. H. Jameson, Vancouver, B.C. Agents J. L. Neilson & Co., Winnipeg, Man.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Wanted To Buy

1½ in. or 3 in. cull, white or red pine or spruce, also edgings or slabs. Apply M. Brennen & Sons Mfg. Co., Limited, Hamilton, Ont. 2-5

Maple Wanted

Wanted several hundred thousand feet of dry 4/4 Maple for prompt shipment. Apply at once to Box 504, Canada Lumberman, Toronto, Ont. 3-6

Lumber Wanted

Wanted for delivery in March, April or May, 150,000 feet Soft Elm, 2 in. — 3½ in. thick; also 3 to 5 cars 2 in. and 3 in. thick Rock Elm. Reply Box 517, Canada Lumberman, Toronto, Ont. 4-7

Wanted

A few cars of hard maple, 2 x 6 in. or wider, any lengths 2 ft. upwards; also dimension maple, beech or birch 1 to 1¼ in. square short lengths. Write for particulars. J. Finlay & Sons Co., Norwood, Ont. 5-5

Wanted

2 cars Dry Peeled Cedar Posts, 3½ to 4½ —8 ft.
2 cars Dry 1 and 2 in. No. 1 Hemlock, 10-16 ft.
1 car Dry Pine, 1 x 4, 8 and 10—10-16 ft., for boxes.
Cash price less 20 per cent.
Box 195 Jordan, Ont. 5-5

For Sale–Lumber

Lumber For Sale

Spruce bill timber cut to order. Mill now sawing. Hendun Lumber Company, Limited, Haileybury, Ont. 3-4-5

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.
GEO. C. GOODFELLOW,
Montreal, Que.

For Sale–Machinery

Refuse Hog

Party willing to purchase a used refuse hog for saw-mill. Apply Box 518, Canada Lumberman, Toronto, Ont. 4-7

Machinery For Sale

One 75 h.p. also one 100 h.p. engine, heavy log jack and chain, log stop and loader, Hill nigger, Hamilton 3-block carriage, saw frame, live rollers, trimmer, 3-saw edger, No. 94 Berlin planer, sticker, rip saw, shaper, 30-in. bracket saw, automatic saw filing machine, lath machine and bolter, all in good condition; bargain if taken quickly. Vigars Shear Lumber Co., Port Arthur, Ont. 5-5

List of Saw Mill Machinery For Sale

Item No. 1—One Circular Resaw, complete, with two saws. Condition good. Wm. Hamilton Co. make.
Item No. 2—One Large Circular Saw Frame, pulley and arbor complete, (Metal frame), good repair. Waterous make.
Item No. 3—One Seven Block Carriage. Can cut sticks up to 40 feet in length. Wm. Hamilton Company's latest make. No set works.
80 feetV Steel track.
80 feet Flat Steel Track for same.
Three 1¼ in. Served Steel Wire for feed for same.
One Cunningham Twin Engine for above carriage. Practically new.
Item No. 4—50 feet V Steel Track.
50 feet Flat Steel Track.
Item No. 5—Three Head Blocks and Bunks, with Payette dogs for Hamilton No. 2 Carriage.
Item No. 6—One Twin Saw Frame and Arbor, pulley and saws with track and feed chain complete. Condition good. William Hamilton Company make.
Item No. 7 — One Lath Mill. One Bolter. One Picket Machine with saws. In fair repair.
Item No. 8—One New Mershon Horizontal Band Resaw and saws complete. Only used part of one season.
Address
The Colonial Lumber Company, Limited,
4-7 Pembroke, Ont.

Bargains in New Saw Mill Machinery

Immediate Delivery

1—No. 1 RODGERS LATH MILL.
Capacity 100,000 lath per day. Weight 1,400 lbs. $200.00
1 RODGERS 3-SAW GANG BOLTER.
Rips slabs up to 6-in. thick into 1½-in. bolts ready for lath mill, very fast. Weight 1,530 lbs. $200.00
1 No. 2 RODGERS LATH MILL.
Capacity 50,000 lath per day. Weight 700 lbs. $150.00
1 RODGERS MEDIUM SIZE GANG CLEAT RIPPER, STYLES. Fine for planing mills and box shook factories. Takes stock ⅛ in. to 2¾ in. Weight 946 lbs. $200.00
1 RODGER—60-IN. JUMBO EDGER.
Big bargain. Former price $695 now $250.00 Weight 7,900 lbs.
1 LINDERMAN SLAB RESAW.
Just the machine to convert slabs into lumber. Often possible to get 400 to 700 ft. of lumber from cord of ordinary slabs. Cuts 7/16 in. to 1½ in. Former price $475.00. ..... $175.00
All prices F.O.B. Muskegon, Mich.

Also a number of new Edger and Rip Saws (some inserted tooth) which we will also sell very cheap. Full description on request.

We are selling out our saw mill machinery department and consequently wish to dispose of all new machines on hand and are offering them at unprecedented prices for quick sale.

We are making complete arrangements with our successors to carry parts in stock for all above machines.

LAKEY FOUNDRY & MACHINE CO.,
F Muskegon, Mich.

Chopper For Sale

For sale, one Joliette Chopper, 18 inch, in first class condition. Apply J. W. Tuttle, Curries, Ont. 4-7

Machinery For Sale

Cowan No. 2 Double-Surface Planer and Matcher. Cowan Vertical Boring Machine, in excellent condition, at bargain. A. J. Lindsay, 92 Pembroke Street, Toronto. 3-6

Refuse Burner

For sale one refuse burner; diameter 28 ft., height 112 ft.; taken down, ready for shipment. Geo. Gordon & Company, Limited, Cache Bay, Ont. 5-5

For Sale

Ten miles of 52 lb. relaying rail fitted with Atlas joints for prompt shipment. For particulars apply to
JOHN J. GARTSHORE.
58 Front Street West,
5-8 Toronto, Ont.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

BAND SAWYER wants position, right hand mill preferred; 20 years' saw mill experience; first class references. Box 495, Canada Lumberman, Toronto, Ont. 4-7

WANTED POSITION, by a first class mechanic, 25 years' experience in charge of modern high capacity Saw Mills. Can handle any type machinery. Address first instance, Box 497, Canada Lumberman, Toronto, Ont. 2-7

Married man, 37 years of age, with 11 years' experience in logging office of large lumber concern, desires change. Willing to go to any part of Canada. For further particulars apply to Box 498, Canada Lumberman, Toronto, Ont. 5-5

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

POSITION WANTED AS MANAGER OF LUMBER AND WOODWORKING BUSINESS, thoroughly experienced in Lumber, Factory and Office routine; expert organizer, and capable of producing maximum results; 15 years with one large Ontario company; at present engaged. Best credentials. Box 516, Canada Lumberman, Toronto, Ont. 4-5

WANTED POSITION AS SUPERINTENDENT OR FOREMAN in planing mill. Am thoroughly experienced in all lines of interior fittings,, sash, doors, hardwood flooring and box making. Can estimate and do draughting. First class on blue prints. Can handle cost system, get results and cut costs. References. Box 512, Canada Lumberman, Toronto, Ont. 3-6

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

WANTED MILL-WRIGHT capable of handling large mill. Must be industrious and a worker. Answer,
BISHOP LUMBER CO., LTD.,
5-5 Nesterville, Ont.

WANTED BY LARGE LUMBER CONCERN an accountant experienced in the lumber business, who is capable of acting as office manager. Address application to Box 520, Canada Lumberman, Toronto, Ont. t.f.

WANTED COMPETENT TIMBER ESTIMATOR woods and river foreman. Year round position for right man. State age, experience and references. Box 529, Canada Lumberman, Toronto, Ont. 5-5

WANTED YARD FOREMAN AND SHIPPER able to handle men and thoroughly conversant with Hardwood and Softwood Gradings. Mostly U. S. shipments. Mill capacity 65,000 per day. Province of Quebec. Do not apply unless able to fill the above requirements with margin. State salary. Both languages necessary. Snap holds the job. Box 524, Canada Lumberman, Toronto, Ont. 4-5

Business Chances

For Sale

Planing, saw and chop mill, and auto truck. 1¼ ton capacity, jacks, pipe dies, vise and anvil. Everything as it is half price. Want to go West. Apply to John McCormick, Lawrence, Ont. 1-6

WANTED

By B. C. Manufacturer, two or three live salesmen in Ontario and one in Montreal, to sell B. C. Red Cedar Shingles and Fir Lumber on a commission basis. Have large output of Shingles, specialize in Fir Timbers. Box 526, Canada Lumberman, Toronto, Ont. 4-5

For Sale

Saw and planing mill, with lumber yard, and about $5,000 stock; good village and farming community in southern Ontario. Excellent railway facilities. Price $15,500.00. Box 510, Canada Lumberman, Toronto, Ont. 3-6

Wanted

Partner with some capital to take interest in one or more very valuable inventions, two of which are the greatest the world has ever known. Write P. O. Box 228, Woodstock, N.B., Canada. 5-t.f.

FOR SALE

Valuable Spruce Timber Lands. This is an exceptional opportunity for pulpwood. This property is situated on the Canaan River and its branches, within easy reach of navigation. The mill in connection with this property is at Coles Island, within 60 miles of St. John, at the head of navigation on the Washademoak Lake, a tributary of the St. John River. The property contains about 47,000 acres. About 15,000 freehold and 32,000 New Brunswick Government limits. This property has been exceptionally well protected and as to the freehold, has on it an exceptional spruce growth which is in excellent condition, and would produce a very large quantity of superior quality of pulpwood.

For further information and details, apply to
THE S. H. WHITE CO., LTD.,
3-6 Sussex, N.B.

Miscellaneous

Timber Limits For Sale

For sale berth 161,, Blind River waters, well situated and easy to log. 12 millions of Hemlock, 4 millions of Pine, 5 millions of Birch and Maple, and a large quantity of Ties and Cedar. Good mill here to cut stock. Drawer 67, Blind River, Ont. 2-5

For Sale

24 B. C. Timber licenses (perpetual) on inland passage to Prince Rupert. Also properties at Chilliwack Lake and Quatsino Sound. All good logging propositions..

CARL BLOCK,
5-10 Peoria, Ill.

SALE OF HARDWOOD TIMBER

Tenders will be received by the undersigned up to and including Monday, the 2nd day of April next, for the right to cut the hardwood timber on the Townships of Merrick, Mulock, Stewart and Lockhart in the District of Nipissing.

Tenderers shall state the amount they are prepared to pay per M. ft. B.M. for the hardwood timber in addition to the Crown dues of $1.50 per M. ft. B.M., and the amount per cord for timber cut into cordwood, in addition to Crown dues of 25c per cord.

The successful tenderer shall be required to erect a suitable plant, costing with the equipment and machinery thereof not less than $100,000, on or near the territory, and to manufacture the timber in the Province of Ontario.

Parties making tender will be required to deposit with their tender a marked cheque, payable to the Honourable, the Treasurer of the Province of Ontario, for $10,000, which amount will be forfeited in the event of their not entering into agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

G. H. FERGUSON,
Minister of Lands, Forests and Mines.
Toronto, February 17th, 1917.

N.B.—No Unauthorized publication of this notice will be paid for. 5-6

Great Demand for Aeroplane Spruce

The enormous extent of the European aviation operations in the war on the west front alone is shown by the big contracts being filled on the Pacific Coast generally for spruce for aeroplane stock. The British Government recently placed a contract for twelve million feet of spruce lumber for aeroplane stock and for knock down houses, to be delivered in one year. And this is only a part of the work being done for the aviation corps. Several mills are turning out spruce flitches of clear stock for this work, a single carload of which would apparently make enough aeroplanes to supply an army, but instead these shipments are going forward in whole shiploads. In this connection it is said that the French Army alone has 15,000 war aeroplanes, while England now has 150,000 trained aviators. So advanced has the art of flying become that the aviation service is now the safest branch of service on the war fronts.

Chicago's Vast Lumber Trade

Some idea of the volume of Chicago's lumber industry is shown by the fact that last year three billion feet passed through the Chicago market. This is enough, speaking in terms of comparisons, to build 150,000 eight-room houses, or, with five persons to the family, to house three-quarters of a million people. The shingles handled in Chicago would cover 1,500 acres of roof. The lumber would build one good garage for every machine to be sold the coming year, and placed end to end would reach from Chicago to the North Pole. The lumber in manufactured form would make forty-two billion boards, an inch thick and a foot wide, and end to end would encircle the globe 3,000 times.

British Columbia Shingle Agency

At the annual meeting of the Shingle Agency of British Columbia officers were elected as follows:

President—Robert McNair, of the McNair Shingle Co., Port Moody.

Vice-president—H. A. Stoltze, of the Stoltze Manufacturing Co., Ruskin.

Secretary—R. D. Hyde (re-elected).

Directors—E. S. Sanders, Joseph Chew, J. R. Craig, William Tyler, George B. Cross, A. Cotton, C. J. Cutler, H. Shull, W. F. Huntting, J. McLean, R, J. Thurston, A. P. Allison, T. McLarty, J. Black, H. J. Mackin.

The secretary's report recited the satisfactory conditions of the last year and while shingle prices have got back to where they were in 1912, it was pointed out that the increase in shingles was not so great as the increases in prices of other commodities.

Low Fire Loss on United States National Forests

A loss to the United States Government of $162,385 in timber, forage and young growth was caused by fires on the National Forests in 1916. Although there was more than the average number of fires, the loss is the smallest that has been sustained from fires since the National Forests were established. A favorable season in the regions where the most severe damage is usually sustained is given as the chief reason for the relatively small loss.

A total of 299,377 acres of Government land was burned over. In addition to this, the fires covered 123,160 acres of privately-owned land in the National Forests where timber valued at $36,-214 was consumed. About forty-four per cent. of the total area burned was located in the National Forests of Arkansas and Florida.

Of the 5,655 fires which occurred, 4,133, or 73 per cent., were confined to areas of less than ten acres. Many of these small fires, according to the Forest Service, might have developed into serious conflagrations had they not been extinguished in their incipiency.

Union Lumber Co.
Limited

SAWING NOW!!!

Red and Jack Pine

can cut special bills up to 10x10-16

Union Lumber Co., Limited
701 Dominion Bank Building
TORONTO, CANADA

HARDINGE
Watchman's Clocks
Write for details
SIGNAL SYSTEMS CO.
205 Stevenson Bldg., TORONTO

LUMBER WANTED
HARDWOODS
WE SEND INSPECTOR
WAYNE LUMBER CO.
44 WHITEHALL ST.
NEW YORK

"CHEVROLET" CAR
For Sale
Cash Price - $450.00
As good as new, in use only four months. Owner is overseas. Information from
M c/o Box 506
Canada Lumberman
Toronto, Ont.

Birch For Sale
35,000 ft. 1 inch.
20,000 ft. 1¼ inch.
25,000 ft. 1½ inch.
35,000 ft. 4 inch.
(boxed hearts)
Good dry stock, 1915-16 sawing.
Quality log run, mill culls out.
Prices on application:—
Thos. Harling & Son
406-7 Board of Trade Bldg., Montreal
5-10

Review of Current Trade Conditions

Ontario.

The lumber trade situation in Ontario is much the same as it was a fortnight ago, the chief features being stiff prices in all lines and some improvement in the demand. The general price list does not show much change, but the common grades of white pine have advanced from $1 to $3 in the past month, considerable of the advance having taken place during the past two weeks. Stocks of 2-in. mill run Norway are scarce, and prices have advanced from $2 to $3. Spruce mill culls have also advanced to about the same extent. Hemlock continues in good demand, and prices are strong. For 1 x 4 and 5-in, 9 to 16 feet, No. 1, the car lot price at Toronto is $22, and for 1 x 6 in. $26. 2 x 4-in. up to 2 x 12-in., 10, and 16-ft. No. 1 hemlock is bringing $27, while 12 and 14-ft. lengths are bringing $26, 18-ft. lengths $30, and 20-ft. lengths $32. British Columbia products are also firmer, and the demand is broadening. Prices of dimension fir are one dollar higher than they were a short time ago. XXX British Columbia shingles are bringing $3.50.

The car shortage, so far as the delivery of lumber is concerned, has apparently shown no improvement. All dealers are complaining of inability to make shipments or obtain stock. With a normal transportation situation the trade to-day would be in very encouraging volume.

Reports from Northern Ontario are still to the effect that the log output during the present winter has been greatly curtailed. In many districts the weather conditions have not been any too favorable, very heavy snowfalls having been experienced of late, making bush operations difficult. This situation, together with the reduction in the number of camps, is expected to have an important effect upon the quantity of stocks available next season. These stocks, moreover, have been taken out under extremely unfavorable conditions in regard to the class of labor employed and the expense both in wages and materials, so that manufacturers and wholesalers are unanimously predicting that considerably higher prices will rule during the summer and fall of 1917.

The hardwood trade shows continued strength. Manufacturers are all counting upon a fairly active year and firm prices, with advances in many cases.

Eastern Canada.

No change has taken place during the past two weeks in connection with the lumber business at St. John, N.B. Exports to Great Britain and France continue steadily and in large volume. St. John wharves have almost been cleaned off. No price changes are reported. Portable mills have had an excellent winter, but are having difficulty in obtaining transportation for their stocks to tide water. Logging operations are being carried on under serious difficulties, including labor shortage and very heavy snowfalls in all parts of the province. Operations in the woods are costing from $2 to $2.50 per M. feet more than was expected last fall, in some districts. Munition factories in Quebec and Ontario are paying high prices for any stocks they can obtain in New Brunswick. The market for pulp is about as high as it could possibly be under present conditions. The car shortage is crippling trade of all kinds.

A fairly active spruce market is reported from Boston. Orders have been plentiful, and manufacturers are discussing further price advances. The market is firm on a $32 base for frames. Random also is firm. Scantling is quoted at $28, and Canadian and New England manufacturers are quoting $31 for 2 x 8. Other quotations on random are: 2 x 3 and 2 x 4, $27 to $28; 2 x 6 and 2 x 7, $26 to $27; 2 x 10, $32 to $33; 2 x 12, $33 to $34. The demand for hardwoods at Boston continues active. Birch and maple are receiving much attention and are scarce, particularly in thick stocks. Quotations on firsts and seconds inch are all firm, and about as follows: Basswood, $45 to $48; maple, $47 to $49; plain oak, $63 to $65; quartered oak, $88 to $91; sap birch, $55 to $60; white ash, $58 to $61. Hemlock continues strong. An advance of from $2.50 to $3 has taken place on clipped boards, stock lengths of 10, 12, 14, and 16 feet, which are now selling at $23.50 to $24. Hemlock dimension is quiet. Shingle prices are still strong at Boston. The best white cedar extras are selling at $4.50 and fair ones at $4.10 to $4.15. Receipts from Canadian mills are increasing. White cedar clears are bringing $4. Lath are not quite so active, and stocks seem to be about sufficient. Prices, however, are steady at $4.85 for 1⅝ in. There has been business also at $5 and at $4.75. For 1½ in. the quotations are $4 to $4.10.

Great Britain.

The most important event in Great Britain recently, so far as the lumber trade is concerned, is the move of the Army Council in commandeering stocks of softwood lumber. The softwood trade received this development with something like consternation. The official reason given by the government is "to safeguard supplies for military purposes and to prevent further inflation of prices." To what extent the inflation of prices will be prevented is questionable, as it is to a considerable extent a reflection of the abnormally high cost of production in the producing countries, together with the great expense of transportation. If the government order prevents further price advances it will probably be by restraining the advancing cost of transportation. The step thus taken by the government prevented the holding of Messrs. Foy, Morgan & Co.'s regular auction sale, and we are unable, therefore, to present price statements which would have been otherwise available.

The trade at Liverpool was similarly disturbed by the government order. Forward buying has been practically annihilated, as no merchants are prepared to pay shippers' values under present conditions. A moderate demand for birch has prevailed at Liverpool for some time and stocks of planks and boards are very low. Quebec logs are selling at 6 shillings per cubic foot, and no new goods can be brought forward to sell at this price. Arrivals of spruce are practically nil and prices are firm. The trade at Manchester was greatly upset by the government announcement. Stocks arriving at Manchester during the past fortnight have been extremely light.

United States.

One would scarcely gather from the general trade situation in the United States that the country has passed through such a serious national crisis as that involved in the breaking of diplomatic relations with Germany. Good reports are received from all parts of the country in regard to the volume of retail trade. Building permits during January showed an increase of 11 per cent. as compared with January, 1916. The two most important features in connection with the lumber industry are the inadequacy of the transportation facilities, both by rail and by water, for carrying on domestic and export trade, and the likelihood of an extensive prohibition of imports of softwoods, except under license by the United Kingdom.

In the United States domestic lumber trade the questoin of price is not of prime importance, deliveries being the greatest problem to be solved to-day. The car shortage shows practically no improvement. At present practically all the territory east of the Mississippi and north of the Ohio River is subject to embargoes against shipments from all producing sections. In connection with this it must be borne in mind that retailers' stocks in that portion of the country are light. Taking these two features into consideration, it is no exaggeration to say that the trade in this section is facing the most serious situation it has ever experienced. In the South much the same situation prevails, aggravated by an abnormal volume of orders. Mill yards are crowded with stocks which are ready for shipment, but cannot be moved for lack of cars, and production is being held down as a result. On the Pacific Coast the car situation is equally bad, and there is no relief in sight. In Michigan, Minnesota, and Wisconsin embargoes are preventing any shipments. In Maine and other Atlantic Coast points, even through the North Carolina districts, much the same conditions exist, although, on account of proximity to markets producers in the East are able to take quicker advantage of the lifting of embargoes, and find it somewhat easier to obtain cars. The export situation resembles in some ways the domestic situation, as transportation facilities are so inadequate, and as the British Government is likely to prohibit imports of softwood.

The demand for white pine at Buffalo has been heavy during the past fortnight, and stocks in wholesale yards are more broken than is usual during the winter. Prices have advanced from $1 to $5 on different grades during the past three weeks. It has been almost impossible for Buffalo firms to ship stock on short notice, which is one of their important types of trade. North Tonawanda dealers report that they are receiving plentiful enquiries for white pine, and that undoubtedly they will have one of the best spring seasons this year they have ever enjoyed. At Chicago the demand for Northern pine is improving steadily, but the car situation is interfering greatly with trade. One large Northern manufacturing firm reports that it is now behind 1,000 cars on orders, and that its car supply is growing less daily.

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Trade—Prices All Firm

St. John, N.B., February 23rd; (Special to the Canada Lumberman): The last two weeks have seen no change in the lumber business at the port of St. John. As far as shipments to English and French ports are concerned they are moving along very steadily, more deals having been shipped from this port than at any time for many years. The wharves at the port of St. John are about cleared off, and as no stocks are being sawn at the mills here, the manufacturers will have a clear start and plenty of piling room. Prices remain unchanged, in fact no stocks are now unsold at the mills.

The winter has been extra good for the portable mills, and their cuts are fast moving to the rails, the great trouble being in finding cars to carry the stock to tidewater. Large cuts of deals are being piled out on the banks of all the lakes which adjoin the River St. John, ready for lightering to St. John at the opening of navigation. About 25,000,000 feet are being sawn with portable mills within a radius of fifty miles of St. John, but the stocks are very inferior, and mostly narrow widths, as 3 x 4-5-6 in., with a few 7 x 3 in. and up. Logging is being carried on at a great disadvantage, first on account of the very heavy shortage of labor, and its poor quality; secondly, during the last two weeks over two feet of snow has fallen all over the province. On the head waters of the St. John they have about 5½ feet. This is causing the jobbers in many places to quit work. Logs which it was figured in the fall would be cut and hauled for a certain price are costing $2 to $2.50 per M. feet more. Of course, this is not in general, as many parties were well yarded, and with good hauling they have been able to get their logs at normal prices. The American market still continues very firm and shows no signs of weakening. The munition factories in Ontario and Quebec are paying long prices for all the material they can get their hands upon. The wood market for pulp is about as high as it is possible to expect. Car shortage everywhere is the cry, and embargoes are being placed and lifted from day to day.

It will be at least a month before any start is made with the mills at St. John, but the repairs are well under way and they will no doubt be ready by opening of navigation.

Montreal Markets—Stocks Growing Scarce

Montreal, February 24th; (Special to the Canada Lumberman): The lumber market is just now in a very peculiar condition—a condition which one of the oldest lumbermen in the city characterizes as unprecedented. The acute shortage of lumber, particularly of spruce, which was so freely predicted, is now in evidence, and it is impossible to fill all the orders which are coming into offices from local firms and also from Ontario points. These orders and inquiries are by wire as well as by mail. Mr. Arthur Campbell, of the Campbell-MacLaurin Lumber Company, predicts an actual famine of dry stock before the new cut comes on to the market. It is now not a question of seeking business, but of taking care of the requirements of old customers, and orders have been turned down right and left. Wholesalers state that they have not sufficient lumber, and cannot obtain it from the mills, partly owing to the difficulty of securing transportation and partly because of the limited stocks available. "I have sold all the lumber I have," said one wholesaler, "and I do not see where I can get more, except in the way of odd carloads."

The demand is practically all from shell box makers, and, as more orders for boxes are now due, the demand is likely to be still more insistent. The local yards have benefitted by this shortage, as, failing to get supplies from wholesalers, box manufacturers are purchasing where they can from retailers.

Under the stimulus of the small supplies, prices have materially hardened and are likely to go higher. Quotations, indeed, are more or less unsettled, and "on the jump."

Building prospects for the coming season are not very good. It is probable that the chief demand will be for lumber for houses and flats, for which there is need. The cost of building will be greater than two years ago, but against this the value of land has fallen off, Plans are being drawn by some companies for constructing blocks of small houses, totalling from 100 to 300 houses, in the outlying districts.

The pulp situation is about the same. Prices are still high, with a probability of a continuance on the same basis throughout the year. The cost to the producing companies has considerably increased, and those who have to buy pulp wood find it increasingly difficult to secure adequate supplies even at the stiff rates now prevailing. Some of the concerns who formerly cut lumber are now devoting their attention entirely to pulp wood, either for their own use, or for sale to pulp and paper manufacturers. The question of the price of newsprint and export has been the subject of negotiations between the government and the mill owners.

The export situation is much confused. The statement of Prime Minister Lloyd George to the effect that lumber is prohibited will undoubtedly mean a certain decline in shipments from this port, only such lumber going as will be required for the government, and that under license. A very large quantity sent last season was for war purposes, and at the present time lumber is being sent forward, via the winter ports, on old contracts and under license. The statement that the British and French governments intend to utilize domestic wood will obviate the necessity of going outside of England and France except for absolutely necessary supplies, and will naturally affect Canadian exports. At the same time, there is reason to believe that we shall still send an appreciable quantity of lumber to the other side.

Riordon Company Presents Good Annual Report

The report and balance sheet of the Riordon Pulp and Paper Company are evidence of the immense improvement in the pulp industry within the last eighteen months. The net profit for the year to December 31st was $1,331,051, a gain of $1,038,493. The sum of $149,480 is set aside for depreciation, and after paying the bond interest, preference dividend, and 4½ per cent. to the shareholders, $963,236 is carried forward, making a total surplus of $1,338,870. The president points out that the prices now being obtained, under contracts, for their products, are considerably in excess of the prices obtained in 1916. Owing to the heavy demand for pulp, the curtailment of production in Europe, and the difficulty and excessive cost of transportation, the directors anticipate high prices throughout the year. Should present conditions continue, the board expect a banner year for 1917. The installation of the bleaching plant at Merritton was completed and in operation in November, and it is now producing the highest grade of bleached sulphite, which commands a much higher price than the unbleached sulphite formerly produced at this plant. The directors purchased a majority interest in the capital stock of the Ticonderoga Pulp and Paper Company, of Ticonderoga, New York, their largest customer for many years. The product of the Ticonderoga Company, about 30,000 tons of soda pulp and high grade book papers, for the year 1917 has been sold at prices very much in excess of those obtained during 1916.

U. S. Trade Has Encouraging Prospects

The National Lumber Manufacturers' Association reports that prospects for the lumber business in the United States continue good, especially in the car building department, while many good wooden block pavement contracts are to be let. About 560,000 railroad cross ties, the equivalent of 5,000,000 feet of lumber, will be required by the North Western Railway. Arkansas lines are contemplating requirements of nearly 600,000 cross ties. The Pennsylvania will require 5,000,000 feet of lumber for the construction of 1,000 box cars in its own shops at Altoona, and the road is said to be contemplating the building of one thousand 70 ton hopper bottom gondolas. The New Haven is considering a 150 car contract for refrigerator stock, calling for 1,500,000 feet of lumber. The car shortage is causing many roads to increase their rolling stock equipment. In the wooden block paving field some good contracts in sight include Bloomington, East St. Louis, Jacksonville and Marion, Ill., Indianapolis, Madison, S. D., and Hager City, Wis. St. Paul has a $168,000 contract pending, Cincinnati $111,000, while Cleveland has $2,000,000 worth of paving to be done this summer.

Upper Ottawa Limits to be Protected

At meetings held recently in Ottawa it was decided to take measures to protect more efficiently the Upper Ottawa limits from fire. For this purpose the owners will join the Lower Ottawa Forest Protective Association, the latter extending its operations to the Upper Ottawa, as far as the Ontario boundary on the west and Abitibi and the Transcontinental Railway on the north. A committee was appointed to carry out the details. Mr. A H. Graham, the chief fire inspector of the Lower Ottawa Association, will be in charge of the arrangements. All the principal limit holders, including the Booth, Edwards, Eddy, O'Brien, and Hawkesbury lumber interests, were represented.

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Horizontal Slab Resaws
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Striking Results from Forest Patrol

Lower Ottawa Association in Three Years Gets Its Patrolling Cost Down to One-Quarter Cent Per Acre — 1916 Results Especially Encouraging

By Arthur H. Graham*

The area patrolled by the Lower Ottawa Forest Protective Association, Limited, last season was 13,269½ square miles, or 8,492,480 acres. The season was quite as bad, regarding the frequency of fires, as the average, although not so bad as that of 1914. The losses, we believe, were the least ever known in that territory. The total area burned over on limits owned by members was 3,517 acres, and the merchantable timber scorched is estimated to have been 455,220 feet b.m., or, in other words, about half a million feet, mostly salvable this winter.

We patrol extensive areas belonging to settlers, and on Indian reserves, etc., designated by us as private lands, that do not contribute anything to the association, and on those lands we have estimated the fire loss to be 5,120 acres burned over and 401,400 feet b.m. of merchantable timber scorched, so that, including all lands within our territory, the total loss is found to be 8,637 acres of burned-over area and 858,520 feet b.m., or considerably less than one million feet.

One hundred and forty-eight fires were extinguished. Seventy-eight of that number were extinguished ir their incipiency and without extra cost to our members. Seventy were troublesome and required extra help to control. The most serious drought period took place between July 28 and Sept. 3. The peculiar feature of the season of 1916, and one which ran up the cost and acreage, was the extraordnary duration of the danger period. Our organization was put to a severe test when 62 fires broke out and had to be fought during the above period, nearly all at the same time.

Our patrol staff consisted of 57 rangers and 4 chief rangers or inspectors, but during this fire period they were reinforced by about 600 fire-fighters, recruited from drive gangs, logging crews, and settlers where the fires were near settled areas. Experience has proved conclusively that the co-operative system of fire fighting is the strongest and most efficient when the drought period comes and men have to be gathered up and hurried to fires with equipment. We appreciate to the full the excellent co-operation received from operating members through their instructions to their employees to respond to the call to fight fires.

Forest fires are started from various causes. The following were the causes found for the past season. Of the known cases lightning heads the list, with 20 fires; settlers, 19; smokers, 14; fishermen, 12; railway locomotives, 11; berry pickers, 10; squatters, 3; hunters, 3; sawmills, 3; pedestrians, 2; railway right of way clearing, 2; house fire, 1; drivers, 1; and 47 unknown.

Railways are shown to be the cause of 13 fires, but we are pleased to report that they were mostly incipient. The railways operating within our territory patrol their lines with efficient organization, and much credit is due to the fire inspection department of the Railway Commission and the different railway officials.

During three seasons' operations 457 fires have been extinguished, 560 miles of trail have been cleared, and the mileage travelled by rangers was 311,868 miles.

About 300 miles of telephone lines have been constructed by our members. Five large towers have been erected on the most advantageous points of observation, three of which are equipped with local and long-distance telephone connections and are permanently occupied during the fire season. A number of smaller towers and ranger camps have been constructed and fire-fighting equipment purchased and stored at convenient depots in each division.

Ten thousand fire warning posters have been used each season placarding roads, trails, and canoe routes; also a quantity of leaflets and circulars were distributed to settlers, etc.

Controlling Settlers' Fires

During the first two seasons of our experience we found settlers accountable for 50 per cent. of all fires, but fires from that source have been reduced to less than 15 per cent. Much credit is due to the Hon. Jules Allard and the officers of the Forest Protection Branch of his department for adopting the permit system, and for their co-operation in carrying out a campaign of prosecution of offenders against the forest protection laws.

Unfortunately we found it necessary to prosecute 85 persistent offenders, but only six of that number were fined last season. We do not anticipate much further trouble with offenders.

With the co-operation of the Quebec Government during the seasons of 1914 and 1915 the question of slash burning with a permit was introduced to the settlers by our rangers, and considerable experimenting was carried on during the periods of closed season for burning, and in 1915, 322 slashes were disposed of in that way. In 1916 the permit system was no longer an experiment, but a province-wide obligation, brought about by the excellent amendments of the forest protection laws of the province.

The settler is taking more precautions in guarding against his fire getting away, and his opposition to the permit system has almost vanished. In the past season our rangers issued 1,008 burning permits for the disposal of slash and debris; only one of that number gave any trouble to control.

Recruiting a Ranger Staff.

Great care should be taken in recruiting a ranger staff. Experience shows conclusively that the adoption of the merit system and close supervision is necessary if efficient results are to be obtained. We are trying to carry out this system along with a simple form of training. A ranger should be an all-round woodsman, a competent fire-fighter and be instructed in both the English and French languages. He finds three distinct operations involved. Logically the first one is that of education; secondly, to discover the fires, technically called "detection"; and, thirdly, to confine the fires in the smallest possible area and effectually put them out with the minimum of damage.

Our present method of fire fighting is a hard one as well as costly, and often a second outbreak is worse than the first. We hope to experiment this year with the portable pumping apparatus designed by Mr. H. C. Johnson, fire inspector of the Board of Railway Commissioners. The introduction of mechanical equipment to fight forest fires, of course, does not mean that we will abandon the present fire-fighting tools; but where water is available within a distance of four or five thousand feet the power pump will, without doubt, prove practical and efficient, and at the same time reduce the cost of fire fighting materially.

The more sensible method, however, to keep down the cost of fire fighting is by patrol efficiency, or, in other words, putting the fires out before they start.

We do not consider our territory fireproof, and a great deal remains to be done by way of prevention, but we have surely made a start in the right direction.

In comparing three seasons' records we find some very interesting figures, as follows:

Number of fires extinguished—1914, 154; 1915, 155; 1916, 148.

Total area burned over, including private lands—1914, 297,996 acres; 1915, 20,715 acres; 1916, 8,637 acres.

Merchantable timber scorched—1914, 16,625,325 ft. b.m.; 1915, 6,607,450 ft. b.m.; 1916, 858,620 ft. b.m.

The cost of our operations for patrol, which includes all accounts except for fire fighting, has not exceeded $1.50 per square mile, or less than ¼ cent per acre. When extra labor for fire fighting is required, the cost is borne partly by the Quebec Government and partly by special assessment, levied on members according to their mileage enlisted.

The St. Maurice Forest Protective Association operates just east of our territory, and no fires have yet come to us from their side of the line.

We cannot report so favorably of the limit holders west of us, where the fire ranging is done by the individual system of patrolling. This area is known in Quebec Province as the district of the "Upper Ottawa," and includes licensed crown lands to the extent of about 16,000 square miles. A number of the companies in that region, we believe, are doing a great deal to prevent fires, and are spending two or three times more money patrolling and fire fighting than they should have to spend because of their neighbors' carelessness and lack of proper patrolment of their limits by competent rangers.

My remarks in this regard are backed up by a licensee who owns extensive areas in the Upper Ottawa district. Thirty-five million feet of merchantable timber scorched is the estimate of damage done by two fires that reached his limits in an uncontrollable state. This, of course, does not include damage to reproduction. Notwithstanding the fact that he spent $3.80 per square mile patrolling, an additional $2 per square mile was spent fire fighting, thus involving an expenditure of $5.80 per mile.

"What Is My Name?" is the temporary title of an excellent periodical of which we have just received Volume 1, No. 1, published by the Retail Lumber Dealers' Association of the State of New York, Paul S. Collier, secretary. The title of the periodical is only temporary, and the association is asking its members to suggest a good name.

* Manager of the Lower Ottawa Forest Protective Association, Limited.

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Proper Distribution of Cost Burden

By G. D. Keller

One of the most important features of cost accounting in the woodworking factory, as elsewhere, involves a proper discrimination between the direct and indirect burden, and a proper distribution of the various items which these embrace, so that each machine will carry a rate based on the actual cost of operation, as nearly as this can be figured.

There is no doubt that it is easier to group all expenses which cannot be figured against a particular item of production under the general term "overhead," and then apply this constant to the direct cost as a means of getting the total expense of production; but on account of the numerous variations in the cost of operating different machines, as well as the variation in other factors ordinarily classed as overhead, this system of accounting does not work out well. Overhead, as a matter of fact, is often made to embrace items which might readily be distributed and properly apportioned. If this may be done, it is no argument in favor of the other method to say that it is easier. The introduction of an error of this kind may not be serious from a comparative standpoint, inasmuch as it will be present in all of the calculations, but it is effective in reducing the accuracy of the cost figures just to that extent, and hence is definitely undesirable.

As an evidence of what is meant, take the item of liability insurance. This is frequently put into the overhead account, along with the cost of fire insurance; but, while the latter is an indirect burden which accrues whether or not the plant is in operation, liability insurance varies in cost with the pay roll, which is to say that it does not exist when the plant is not operating. Therefore, this is quite evidently an item of direct burden, and should be so considered.

Leading manufacturers have realized during the past few years the importance of working out a scheme of accounting which would take into consideration more definitely the direct as compared with the indirect burden. The reason is not far to seek. Cost figures are obtained not only for the purpose of showing the profit or loss on production, but likewise for the purpose of enabling estimates to be made on business for which the manufacturer is competing.

If the plan happened to have a bad year, and ran less than the normal number of hours, the indirect or overhead burden would have to be distributed over a smaller volume of business, hence would be larger in proportion than it should be. If these charges had to be taken into account in making estimates the figures would, of course, be out of line with those of the plant which had been running at a normal rate, and whose overhead therefore was smaller in comparison with the production. In other words, rigid adherence to cost figures worked out under this system would mean that the manufacturer would have to quote prices which would make it impossible for him to get business.

No cost system is intended to bring about a result of this character, and if it does so it is wrong to that extent. That brings up the proposition that costs should be figured, not on the basis of current indirect or overhead charges, whose percentages necessarily fluctuate with the actual operations of the plant, but with reference to the direct burden, which varies according to the time the plant is in operation. It is this running time which varies according to the volume of goods manufactured, and which must determine the cost of production, especially from a competitive standpoint.

The reader is not to infer from the foregoing that overhead should be disregarded, because it is one of the things that no manufacturer can get away from. The point is that it should not be treated in the same manner as the direct or operating expense, on account of the danger of having the figures represent an abnormal condition. The proper system involves dividing the direct and indirect burden, and, while figuring cost on the basis of the former exactly as the running time indicates, the latter should be figured on the basis of normal running time, whether this is secured or not.

Thus, if the plant works ten hours a day during normal conditions, it has available a total running time of 3,000 hours a year, figuring 300 working days per annum. On account of slack business, or for some other reason, the number of hours run might be but 2,000. If the total overhead or indirect burden of the plant amounted to $10,000, this would be 10 per cent. on a production of $100,000, secured in 3,000 hours of running time, but it would be 16 2/3 per cent. figured on 2,000 hours. Thus it is evident that if the manufacturer who lumped his overhead with his direct burden to determine cost for the purpose of securing a basis on which to compete for business, used 16 2/3 per cent. as his overhead percentage, he would be at a disadvantage compared with those who had been able to run a normal time and whose overhead was probably in the neighborhood of 10 per cent.

On the other hand, if the plant managed to put in 4,000 hours, by working overtime, with a consequent increase in production to $133,333, the application of overhead to this production would present a proportion of but little over 6 per cent. Use of this figure in estimating costs would be dangerous, as well as unfair to competition, because it might easily happen that the running time would drop to normal or below it during the succeeding period, making the cost of production greater actually than the estimate would have indicated.

The ideal plan, therefore, is to determine overhead according to the normal running time of the plant, for cost accounting purposes, and use the result thus obtained in combination with the figures produced by analyzing the direct burden, in figuring the hour rate per machine used in determining costs. Inasmuch as the direct burden is in direct proportion to the running time, and does not vary, and the indirect burden is based on the available running time, whether used or not, cost figures secured in this way are not subject to the wide variation which is present when overhead is permitted to vary with the production, thus creating an element of error in cost figures which is particularly dangerous in estimating against future production.

In the cost system of one large manufacturer which the writer recently had the privilege of examining the direct burden was made up of the following items, all of which, it will be noted, have a bearing on actual operations and are not present when the plant is not running: Labor of foreman; miscellaneous mill help; labor employed in the power plant; labor of filers; fuel used in power plant (coal and wood); material used in packing; material purchased for machines; liability insurance.

In this connection it should be noted that this manufacturer enters a charge for the wood which he burns under his boilers, although this is waste, for which many concerns doubtless make no allowance. Such material is, however, saleable, and in this instance its cost is figured on the market value which it has in that community. This is a small item, but it is well to not overlook small items when it comes to cost accounting.

Now, while all of the items referred to constitute a direct burden, and are direct because they are applied only when the mill is running, not all of them are susceptible of distribution against the individual items of equipment. Such expenses as the labor of foremen and mill help not used on any one machine are, of course, general, and therefore do not require distribution. However, the labor of those engaged in filing may be figured according to the saws for which filing is done, and this is the practice in this place. Purchases of material for individual machines are also treated in the same way.

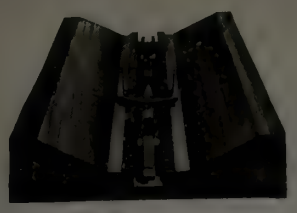
It may be apropos to note that labor used on the machines is not considered in this connection, because it is a direct charge against each job handled through the plant and shows up on the cost sheets for that job. The treatment of burden is for the purpose of disposing of elements in production expense which cannot be put on individual cost sheets. Power is part of the direct burden, of course, a separate sheet being kept for costs in this department, in connection with labor, maintenance, supplies, etc., and the result going into the direct charges from which the machine rate, based on all of these items, is determined.

The number of hours the plant has actually run—machine hours, indicating the time secured by multiplying the number of hours all of the machines have operated by the number of units in operation, is the proper unit—is used as a divisor of the direct burden, which is given for each class of machine. This then becomes the direct burden rate for the possible machine hours.

Indirect burden is figured in the same way, salaries of the superintendent and office, insurance, stable expense, interest and depreciation being included. Interest and depreciation are the only items which involve analysis for distribution against the various machines, as these can be calculated definitely, based on the investment in the equipment. The total secured in this way is divided, as suggested above, not by the number of actual machine hours recorded, but by the total available time, to secure the indirect burden rate. These two, direct and indirect, are added to secure the machine rate on which to base the cost of manufacturing.

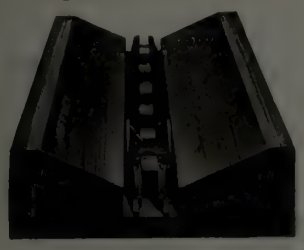
The system involves constant comparison of the running time with the available time, inasmuch as if the former falls below the latter there is going to be an "unearned burden," covering charges indicated in the indirect burden analysis. It is necessary to keep track of this for profit and loss figures, and the comparison is made to show the percentage of "unearned burden" which must be added to the cost before net profit can be figured. But while this factor is taken into account in every cost sheet, it is not permitted to enter into the making of estimates in competition, so that the manufacturer is always using figures which are in line with normal conditions, rather than abnormal ones. In this way he is protected against the peaks of overtime and the valleys of short time, both of which, by any other method, would affect his machine rate and hence his cost figures.—The Wood-Worker, Indianapolis.

Mr. J. Warren Bell, superintendent of important lumber mills at Bellingham, Wash., visited Vancouver recently to look into the log situation. He reports that although the Government of British Columbia has lifted the embargo upon the export of logs, British Columbia loggers are not disposed to sell logs for shipment over the border until Canadian mills have first been supplied.

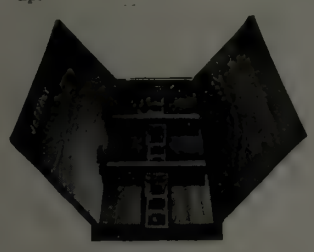


Vulcan Steel Chain with Cast Steel Log Haul-up Spur.

Cast Steel Log Haul-up Spur upon a Long Link Welded Steel Chain.



Malleable Roller Chain Log Haul-up.



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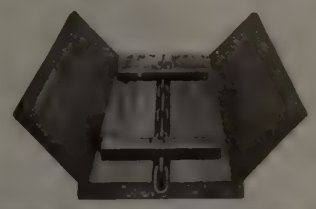
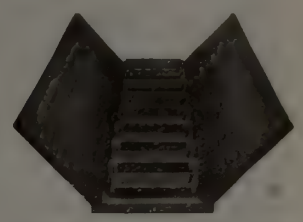


Pulp Wood and Refuse Conveyor made from Long Link Coal Chain with U Bolts and Wood cross-bars at intervals.



Malleable Drag Refuse Chain mounted upon a steel plate.

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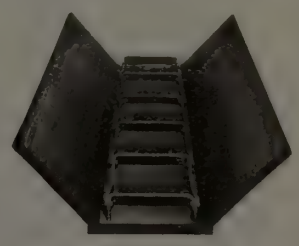

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No.	107,380	Sept. 10, 1907	Cutter head knife sharpener
No.	108,490	Nov. 12, 1907	Band saw tensioning device
No.	109,194	Dec. 17, 1907	Adjusting means for planer heads
No.	109,845	Jan. 21, 1908	Adjusting means for planer heads
No.	110,216	Feb. 11, 1908	Variable speed mechanism
No.	110,217	Feb. 11, 1908	Variable speed devices
No.	113,311	Aug. 4, 1908	Driving mechanism for planers
No.	113,478	Aug. 11, 1908	Sanding machines
No.	115,919	Jan. 5, 1909	Knife holder for cutter heads
No.	117,080	Mar. 9, 1909	Multiple board gauges
No.	120,467	Sept. 14, 1909	Multiple gauges
No.	120,468	Sept. 14, 1909	Locking mechanism for gauging devices
No.	120,610	Sept. 21, 1909	Feeding mechanism for saws
No.	121,235	Oct. 12, 1909	Feed and adjusting mechanism for saws
No.	121,236	Oct. 12, 1909	Adjusting means for saws
No.	122,023	Nov. 23, 1909	Adjusting and grinding planer knives
No.	122,172	Nov. 30, 1909	Feed rolls for planers
No.	122,341	Dec. 7, 1909	Holding device for planer head bits
No.	123,041	Jan. 4, 1910	Cutter heads for grooving machines
No.	123,239	Jan. 18, 1910	Fastening means for planer knives, etc.
No.	127,643	Aug. 23, 1910	Bearings
No.	128,664	Oct. 18, 1910	Holding devices for planer heads
No.	128,665	Oct. 18, 1910	Grinding and jointing devices for planer
No.	128,797	Oct. 25, 1910	Planer heads
No.	128,918	Nov. 1, 1910	Sawmill carriages
No.	129,089	Nov. 8, 1910	Double acting set works
No.	129,200	Nov. 15, 1910	Abrading Cylinders
No.	129,343	Nov. 22, 1910	Planer Knife Sharpeners
No.	129,489	Nov. 29, 1910	Improvements in lathes or turning machines
No.	135,863	Sept. 26, 1911	Cutter heads for edgers
No.	137,636	Jan. 2, 1912	Spiral Indicator
No.	138,258	Feb. 6, 1912	End thrust bearings
No.	139,018	Mar. 12, 1912	Planer knife holding devices
No.	139,019	Mar. 12, 1912	Matching planer heads
No.	139,020	Mar. 12, 1912	Expansion cutter heads
No.	139,021	Mar. 12, 1912	Clamping devices for woodworking machines
No.	139,310	Mar. 26, 1912	Matching planer heads
No.	139,311	Mar. 26, 1912	Tensioning device for feed rolls
No.	140,031	Apr. 30, 1912	Steady rest for wood turning machines
No.	140,514	May 21, 1912	Straight opening drums
No.	144,261	Nov. 26, 1912	Profile cutter heads
No.	144,579	Dec. 10, 1912	Adjustable guides
No.	148,441	June 10, 1913	Chipbreaker for planers
No.	148,936	July 1, 1913	Adjusting devices
No.	148,937	July 1, 1913	Board cleaners
No.	164,577	Aug. 21, 1915	Lever set works
No.	164,578	Aug. 21, 1915	Self centering and gauge saving devices
No.	164,825	Sept. 14, 1915	Improvements in planers and matchers
No.	164,826	Sept. 14, 1915	Improvements in cutter heads
No.	165,077	Sept. 28, 1915	Improvements in variable speed drives
No.	167,026	Jan. 11, 1916	Take-up devices for sander drums
No.	167,595	Feb. 15, 1916	Improvements in lubricating systems
No.	168,392	Mar. 28, 1916	Improvements in chipbreaker lift devices
No.	168,393	Mar. 28, 1916	Improvements in belt tighteners
No.	168,394	Mar. 28, 1916	Improvements in sighting devices
No.	170,516	July 4, 1916	Pressure roller construction for saws
No.	170,800	July 11, 1916	Side head holdovers and chipbreaker lift structure
No.	172,264	Oct. 3, 1916	Profile cutter heads
No.	172,265	Oct. 3, 1916	matcher heads
No.	172,266	Oct. 3, 1916	Improvements in saw structures
No.	173,194	Nov. 14, 1916	Improvements in lever set work
No.	174,055	Dec. 19, 1916	Improvements in feed adjustments
No.	175,129	Feb. 13, 1917	Tool and guide adjustments

P. B. Yates Machine Co.

Limited

Hamilton, Ontario

New Brunswick Firm's Enterprise

Haley & Son, St. Stephen, N.B., Nearly Ready With New Plant to Replace One Destroyed by Fire in October

An example of the progressiveness of the manufacturing industry in Eastern Canada is afforded by the business carried on by Haley & Son, lumber merchants and manufacturers, St. Stephen, N.B., who, on Oct. 17 last, lost their factory, warehouse, and a considerable quantity of stock in their yards by fire. The loss amounted to about $52,000, but was fully covered by insurance. Messrs. Haley & Son at once started on plans for new construction, and in less than a month's time had their new warehouse erected, a building 115 feet long and 56 feet wide, two storeys, with a monitor roof. This warehouse is built on the most modern plan, with a driveway through the centre of its entire length, so that wagons can be loaded and unloaded without the materials being exposed to the elements. A siding extends along the end of the warehouse so that materials from cars can be unloaded direct. This warehouse is used for the storage of all kinds of stock materials, such as mouldings, gutters, floorings, sheathings, windows, doors, veranda materials, wall-boards, etc., including all kinds of fir products from the Western coast. The warehouse will hold more than fifty carloads of building materials.

While the warehouse was under construction, work was also pushed ahead on the new factory building, which will cover practically the same ground area as the old factory, namely, main building 120 ft. long and 66 ft. wide, with a wing 50 ft. long and 44 ft. wide, all two storeys, with monitor roof. Considerable of the machinery for the new factory has been delivered, and the firm hoped to have the new plant in operation by March, but it is now likely to be later, as the work has been delayed by adverse weather.

Haley & Son's business consists of several departments—first, the sawmill, where logs are sawn into boards for box-shook purposes; second, the box-shook department, where all kinds of box-shooks are manufactured, including boxes for confectionery, soap, fish, macaroni, butter, salt, axes, cotton goods, etc.; third, the retail lumber yard, where all kinds of lumber are kept constantly on hand, in spruce, pine, and hardwoods, also laths, shingles, clapboards, etc.; fourth, wholesale lumber. This business consists of the buying and shipping of lumber from mills in New Brunswick and Quebec to dealers in the United States.

A considerable portion of their box-shook business is purely local, consisting of the production of shooks for Messrs. Ganong Brothers, Ltd., confectioners, and for the St. Croix Soap Manufacturing Company. Other local concerns for whom they make shooks are the Mann Axe and Tool Company and the Canadian Cottons, Ltd. Outside of the purely town business in box-shooks they make considerable quantities of shooks for fish-packing concerns in Canada, the major portion of the latter being shipped to Grand Manan. Their business outside of the town and county limits has recently been expanding, and since last summer they have shipped large quantities of shooks to Montreal and to the English market. They had recently opened up a business with a firm in Liverpool, and shooks shipped during the past summer proved satisfactory. A few days after their fire they received repeat orders for several car loads, which, under the circumstances, had, unfortunately, to be declined. About fifteen years ago the Messrs. Haley did an extensive business in the exportation of box-shooks to the Old Country, particularly to the ports of Glasgow and Manchester, but prices dropped off to such a low level that it could no longer be carried on at a profit. Since the war broke out, however, prices have again revived.

Lumbering Still Extensive in North Carolina and Virginia

That United States timber is far from exhausted is demonstrated by the manner in which logging operations are being conducted in one of the oldest settled portions of North America, the North Carolina and Virginia region, where the North Carolina Lumber Manufacturers' Association are operating extensively with many mills. Land which was plantation ground just before the war is now producing merchantable timber, indicating the manner in which the moist winds of the Atlantic Coast nourish vegetation. North Carolina lumber furnishes about fifteen times as much tonnage as cotton and nearly five times as much tonnage as all agricultural products.

Abitibi Company Reports Good Year

It was stated at the annual meeting of the Abitibi Power and Paper Company, held in Montreal, that the profits, after meeting prior charges, totalled about $600,000; the sum of $365,000 was written off for depreciation, the balance of $220,000 being carried forward. The enlarged sulphite mill should be operating about May. The work in connection with installing the new paper machines, which will double the company's output of newsprint, is going forward, and the machines will probably be operating before the end of the year.

Get SMART-WOODS Prices for Mackinaw Garments

Mackinaw Pants and Coats

All pure wool. Fast color. Black and check.

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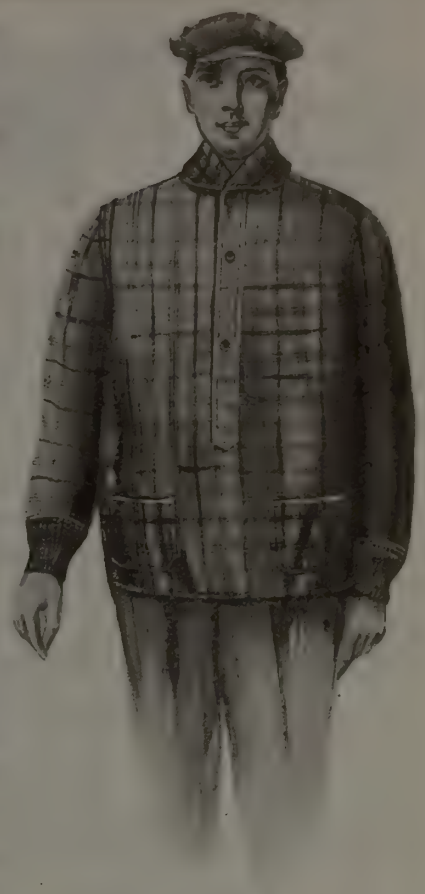
(Something New)

A " Wind Break" has all the advantages of a sweater and jumper combined. Heavy felted cloth to break the wind. Absolutely all pure wool which guarantees warmth. Knit wool sweater cuffs. Adjustable collar to be worn open or closed. Two pockets placed where they should be. Grey with black check, red with black check. Blue with black check and brown with black check.

Write for prices and samples.



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We make a Specialty of

Horizontal Tubular Boilers

for Saw Mill work. They are made in an extensive plant built and equipped for the purpose with all modern appliances.

The three prime elements of Design, Material and Workmanship receive equal and most painstaking attention, ensuring a boiler warranted to give perfect satisfaction and long service.

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Special Attention Given to Prompt Delivery

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EDGINGS

Ontario

The Rumford Lumber Company, Limited, with head office at Cochrane, Ont., and capital stock of $40,000, has been incorporated. The incorporators include Jas. Rumford and Jas. A. Stewart.

The Spanish River Pulp and Paper Company, Limited, Sault Ste. Marie, Ont., have completed the installation of a new 110-inch cylinder wrapping machine which will turn out forty tons of wrapping paper per day.

The enlarged sulphite mill of the Abitibi Power and Paper Company, Iroquois Falls, Ont., will probably be in operation during the month of May. The installing of new paper machines to double the company's output of newsprint is now in progress and these machines are expected to be in operation before the end of 1916.

The Riordon Pulp and Paper Company, Montreal, have decided to go ahead with their plan for constructing a fine bleached sulphite mill in the Temiskaming district, Northern Ontario. Practically all arrangements have been completed, including the purchase of the machinery. Work will be commenced as soon as the weather permits. The first unit will be for 100 tons per day, the ultimate capacity being 500 tons. The company have a rossing plant at Haileybury.

Plans and specifications have been announced for the erection of a 150-ton sulphite pulp plant at Port Arthur, Ont., by the Port Arthur Pulp and Paper Company, Limited. The company have been given 100 acres of land by the city at Bare Point, and will be supplied with water free of charge. The wood preparing plant will be 70 by 160 feet, one storey, constructed of concrete and brick. It is expected that the first unit of fifty tons will be in operation by November next. The sulphur storeroom will be 53 by 107 feet; the digestor house, 30 by 199 feet and 96 feet high, containing six digestors. The drying machine room will be 230 by 50 feet.

The Department of Lands, Forests and Mines of Ontario are calling for tenders until April 2nd for the right to cut hardwood timber on the townships of Merrick, Mulock, Stewart and Lockhart in the district of Nipissing. Tenderers are to state the amount they will pay per thousand feet board measure in addition to the ground rent of $1.50 per thousand feet board measure, and the amount per cord for timber cut into cordwood, in addition to the Crown dues of 25c per cord. The successful tenderer will be required to erect a plant costing not less than $100,000 on or near the territory, and to manufacture the timber in Ontario. Tenderers will be required to deposit $10,000 as a guarantee. Further particulars may be had from the Minister of Lands, Forests and Mines, Toronto.

Eastern Canada

The woodworking plant of P. N. LeBlanc, Moncton, N.B., was recently damaged by fire, the loss amounting to $4,000.

A portion of the sawmill belonging to Cyr and Freres, St. Rose, P. Q., has been destroyed by fire. The damage is estimated at $15,000.

The Pejepscot Paper Company, Great Salmon Rover, N.B., have purchased property on the water front at Belfast, Me., to be used as a shipping terminal for pulpwood shipped to Maine from the Bay of Fundy.

The Oxford Paper Company, Rumford, Me., have secured a large tract of Canadian timber to supply their plant with pulpwood. Daniel Stuart, formerly of Rumford Point, is in charge of the Canadian limits of the company.

The Metropole Lumber Company, Limited, has been incorporated with head office at Montreal, P.Q., and capital stock of $20,000, to carry on business as general lumber merchants. Those interested are H. Chenevert, P. Caumartin, E. Theberge, T. Robillard and A. E. Theberge, all of Montreal.

The New Brunswick Sulphite Fibre Company, Limited, has recently been incorporated, with capital stock of $200,000. This is the company that is erecting a new pulp mill at Millerton, N.B. The plant is making rapid progress. All the machinery has been ordered and the company expect to commence operations early in April.

Atlantic Pulpwoods Ltd., has been incorporated with head office at Montreal, P.Q., and capital stock of $500,000, to carry on business as manufacturers of and dealers in timber, lumber and pulpwood of all kinds. Among those interested are C. N. Blakeley, C. M. Cotton, F. T. Enright, Westmount, P.Q., E. W. Westover, and H. C. Mariotti, of Montreal.

Haley and Son, St. Stephen, N.B., whose plant, warehouse and stock were destroyed by fire on October 17th, have rebuilt their warehouse and report that good progress has been made in the construction of their new factory, which they expect to have in operation early in the coming spring. The main building will be 120 feet long and 66 feet wide, with a wing 50 feet long

and 44 feet wide, all two storeys Most of the machinery has already been delivered.

Western Canada

The new shingle plant of the B. K. Lumber Company on Lulu Island, B.C., is ready for operation.

The McIntyre mill at Capilano, B.C., will be removed and probably located near Hollyburn, B.C. The timber near Capilano has been cut out.

The Brooks-Bidlake Cedar Company have erected a wing to their mill at Powell River and are installing four new shingle machines, which will double their shingle capacity.

J. G. Robson, New Westminster, B.C., president of the Timberland Lumber Company, has bought a site for a new sawmill on the south side of the Fraser River, opposite New Westminster.

The Victoria Lumber and Manufacturing Company, Limited, Chemainus, B.C., have been making considerable improvements to their plant of late, including the installation of new fast feed carriages, the building of new saw foundations, installation of live rolls and transfer system, erection of new dry kilns, etc.

The Canadian Cedar and Lumber Company, Limited, has been incorporated with head office at Winnipeg, Man., and capital stock of $40,000, to carry on business as manufacturers, importers and exporters of, and dealers in, lumber, timber, logs and wood of all kinds. The incorporators are J. Meloney, John H. Meloney, and Warren W. Scoville.

The Dominion Shingle and Cedar Company have completed their new shingle mill at New Westminster, and have commenced operations. The plant will be run night and day with a double shift. The new plant cost, with its machinery, about $40,000, and its capacity is about 300,000 shingles in 24 hours. The company state that their output will be disposed of in the United States and that contracts have been closed for two years to come. The mill will employ 35 men on each shift and its mill pay roll will be about $5,000 a month. The employees in the woods will receive about $7,500 a month.

The Brunette Saw Mills Company have completed the construction of their new shingle mill at New Westminster, B.C., and the machinery is being installed. The new mill will replace one that was destroyed by fire recently. Its equipment is to be thoroughly modern and its construction is such as to render it almost fireproof. The building is of solid construction six inches thick and all the timbers are dressed in order to prevent the cedar dust from clinging to them. The equipment consists of seven shingle machines and the output, at full capacity, on single shift will be approximately 275,000 shingles per day. It is expected that the cost of the plant will be about $40,000. The machinery will all be electrically driven.

The Pacific Mills Company, Limited, who have almost completed their paper plant at Ocean Falls, B.C., will commence shortly upon the erection of a second and larger unit, to be erected directly across Link River from the new buildings. The second unit is to be about 10 per cent. larger than the first and will have a capacity of approximately 125 tons of paper per day, giving the complete plant a capacity of 225 tons per day. When completed the mill will be one of the largest in the world. It is estimated that between 600 and 700 men will be employed when the two units are complete. Most of the output will be kraft paper. Within fifty or sixty miles of the new town site, the Crown-Willamette Paper Company, the parent company of the Pacific Mills Company, Limited, own between 4,000,000,000 and 6,000,000,000 feet of timber, mostly spruce and hemlock.

Canadian exports of forest products during the twelve months ending December, were valued as follows:—1916, $55,224,919; 1915, $47,779,509; 1914, $41,871,638.

The Dominion Government are sending overseas six more portable sawmills for the preparation of lumber and timber required by forestry units on the western front.

Mr. T. J. Stevenson, sales manager of the Riordon Pulp and Paper Company, Montreal, has been elected a member of the Transportation Bureau Committee of the Montreal Board of Trade.

Mr. J. D. Moir, formerly of Quebec, P.Q., died recently in New York at the age of 48. The late Mr. Moir was manager in New York for Messrs. Wm. Whitmer and Sons, Philadelphia, Pa. He was well known to lumber manufacturers and wholesalers in Eastern Canada, and made frequent trips to Quebec and Montreal.

William S. Thomas, president of the firm of King Brothers, Quebec, P.Q., died recently, at the age of 72. The late Mr. Thomas came to Canada from England about 1860, and settled in Quebec about forty-five years ago. He joined the firm of King Brothers, lumber manufacturers and merchants, and was for many years their secretary-treasurer. On the death of Mrr. James King, in 1900, Mr. Thomas became vice-president, and on the death of Mr. Charles King, in 1913, he succeeded to the presidency.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
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1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
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1¼ x 10 in. and 11 in 10/16 ft. merchantable.	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

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Yours very truly
L. A. DeLaplante Limited
per W. Costain Supt.

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have been installed in over 3000 factories of all classes during the past fifteen years, and the above letter is one of many of a similar import, bearing testimony to the efficiency, long life, and cleanliness of the bearing. Some of these have been compiled in a booklet, "Results", which we will be pleased to send on request.

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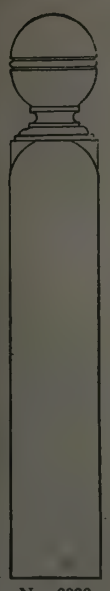

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Wilfrid H. Pauzé

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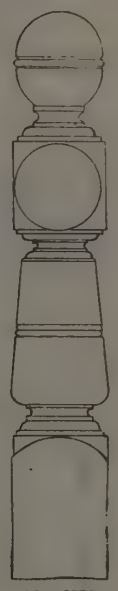

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5 Carloads of Mouldings in Stock; all Standard Pattern in B.C. Fir.

Base and Casing, B.C. Fir.

Have always cars in transit. Ask for my prices and you will make larger profit.

Distributor of

"BEAVER BOARD"

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Colonial Columns

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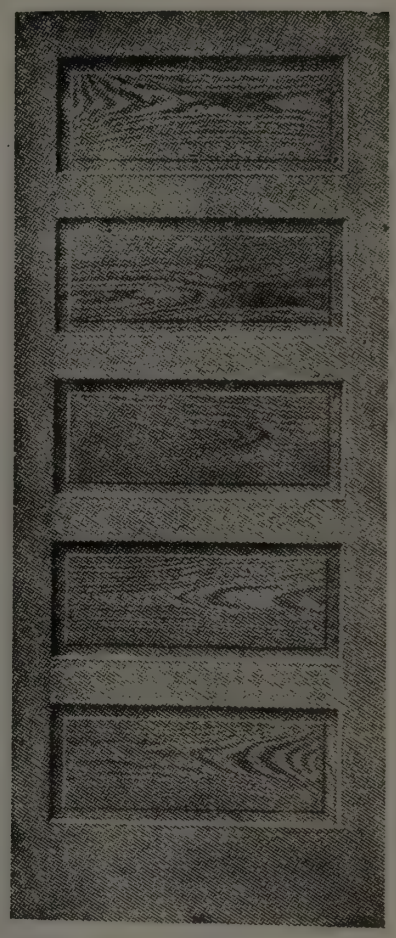

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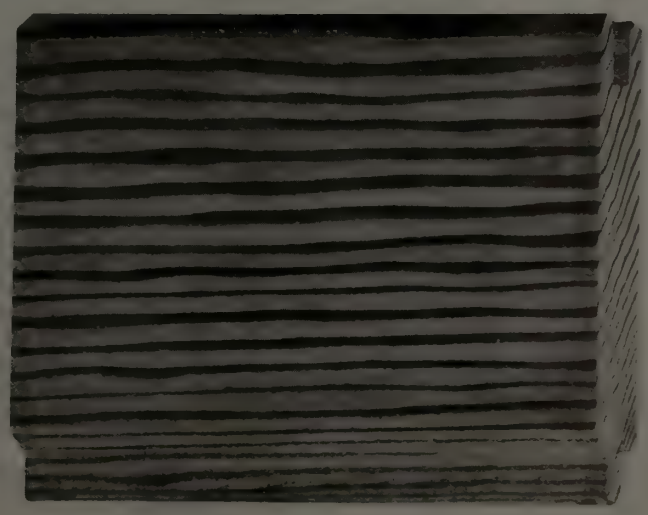
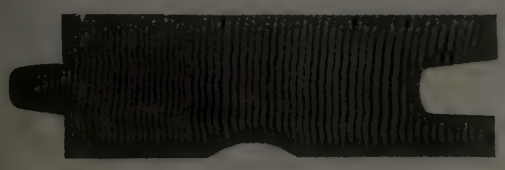
It costs you no more to get clear lumber and your customers will save on painting.



If clear and well kiln-dried lumber will satisfy you, we have it.



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"Wilson Bros." Hardwood Flooring

is the Flooring that is manufactured expressly to supply the demand for the best. It is made by modern machinery from carefully selected stock, and every precaution is taken throughout our entire system to make it fulfil the requirements in every particular. Write us for prices.

Wilson Bros., Limited - Collingwood, Ont.

When You Overhaul Your Mill

THERE are wet places in every saw and pulp mill where nothing but the highest class belting can "make good." It is for these wet places that we recommend what most mill-men swear by—our

"ACME WATERPROOF" BELT

this belt is especially made for a rough and trying service. It has less stretch than any other belt by 15 to 25 per cent.
When you are overhauling try a Goodhue "Acme Waterproof" belt. Other Goodhue belts are "Extra" and "Standard."

Prices and Particulars on Request.

J. L. Goodhue & Company, Limited

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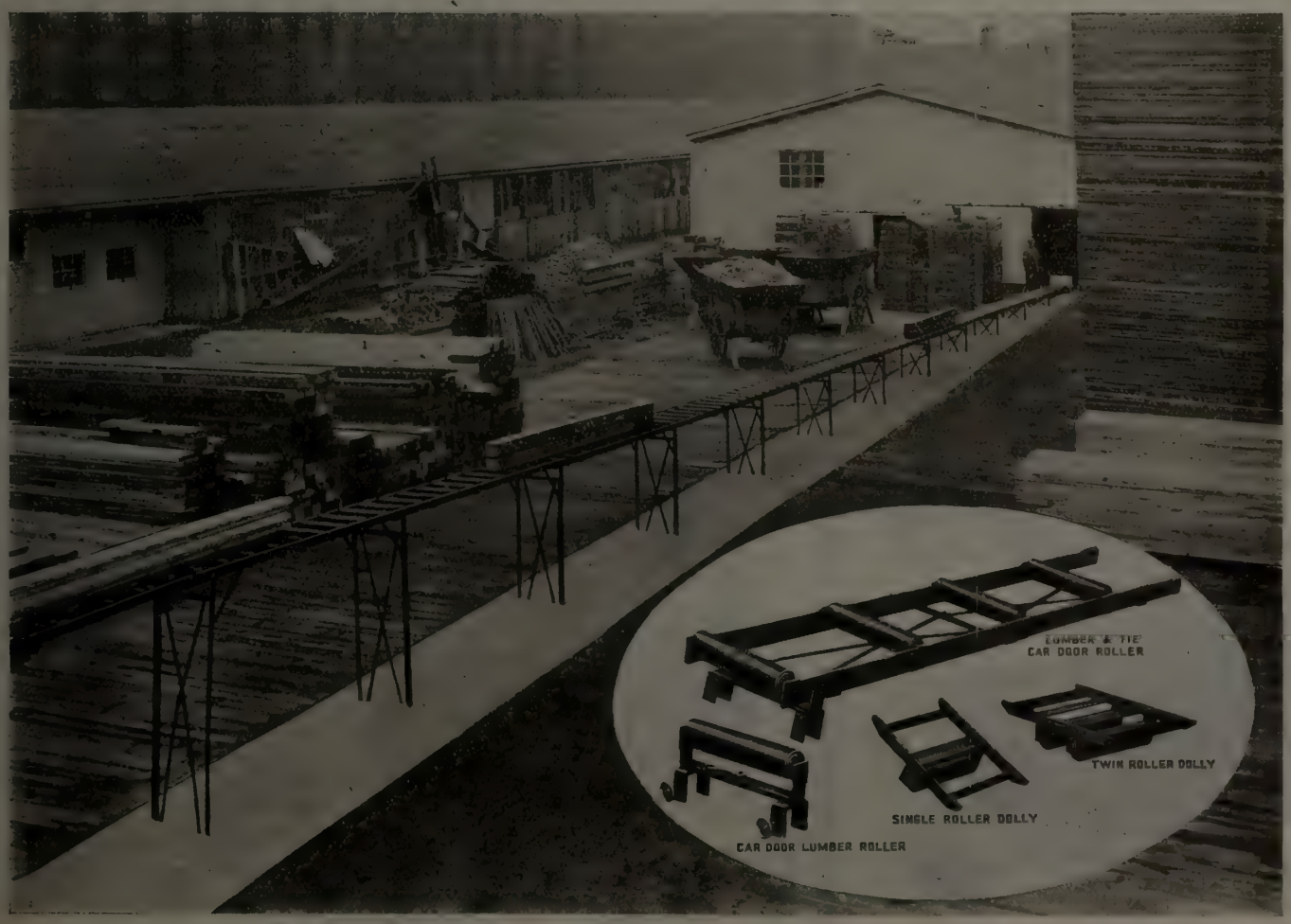
VANCOUVER AGENTS—Fleck Bros., Ltd., 1142 Homer St., Vancouver, B. C.



The Power of Gravity is Free— Use it to handle Your Lumber

Our Steel Ball Bearing Gravity Lumber Carrier conveys boards, siding, flooring in bundles, timbers, etc., upon a grade of 4% (4 ft. fall in 100 ft.) The sensitive bearing moves the lumber.

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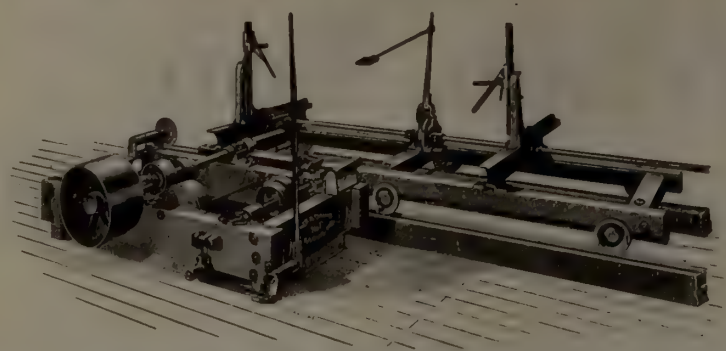


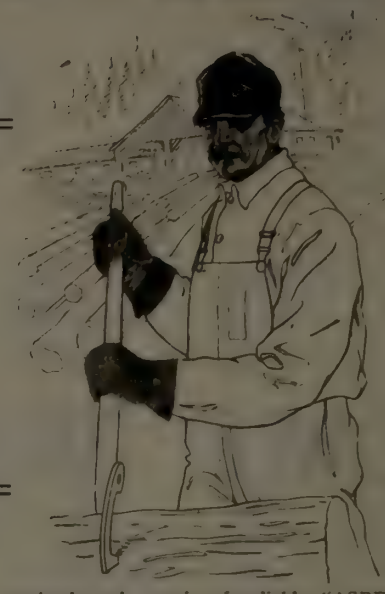
Manufacturers of the best quality of

Circular Sawmills and Sawmill Machinery

We specialize on mills of from 5,000 to 40,000 feet capacity.

HAVE YOU OUR CATALOG?

EQUIPPED AND READY FOR A HARD DAY



With a stout canthook and a pair of reliable "ASBESTOL" Mittens you are equipped to encounter the hardest kind of work.

ASBESTOL REG. IN U.S. PAT. OFF.

EISENDRATH'S CELEBRATED HORSE HIDE

Gloves and Mittens

are long lived and sturdy.

Another of the many "ASBESTOL" features is that they can be washed and will dry out soft and pliable.

Dealers—Your jobber has "ASBESTOL" Gloves and Mittens. Ask him to show you the line.

EISENDRATH GLOVE CO., 2001 Elston Ave. **Chicago, Ill.**

This Pound of Coal

is Capable of Sustaining a Horse-power for nearly an hour.

Every pound of coal contains a definite amount of potential energy—combustion liberates it in the form of heat energy—eventually, mechanical motion. Even in passenger locomotive service (notoriously wasteful in energy transmission) a pound of coal will develop a horse-power for 20 or 25 minutes. With this in mind imagine an installation of the

Morehead Back to Boiler SYSTEM

saving, daily, from 2,000 to 30,000 pounds of coal—paying for itself in a few months' time.

This is the experience of hundreds of woodworking plants using steam for heating and drying purposes.

The Morehead System keeps steam-heated equipment absolutely free of condensation—returning under pressure the chemically pure hot condensation to the boilers as feed water.

Ask for particulars applying to your individual requirements. Our experts will be glad to work with you on any job you have which involves the use of steam in any way.

Canadian Morehead Mfg. Company

WOODSTOCK, ONTARIO

JOHNSON'S Veterinary Remedies

are the surest, the most economical and the best medicines with which to equip your stables. They have been on the market for twenty-five years and still retain their superiority over all others.

Johnson's Horse Liniment No. 1	Per Gal.	$5.50
Johnson's Horse Liniment No. 1	Quarts, Per Doz.	16.00
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Johnson's Horse Colic Remedy	Quarts (8 Doses each) Doz.	17.00
Johnson's Horse Colic Remedy	Pints (4 Doses each) Doz.	9.00
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....2 lb Tins	each 2.25 Doz.	24.00
¼ lb. Tins	Per Doz.	3.50
Johnson's Concentrated Condition Powders, 1 lb. Pkgs.	Doz.	4.00
Johnson's Horse Worm Powders, 1 lb. Pkgs.	Per Doz.	2.50
Johnson's Purging Balls	Per Doz.	2.50
Johnson's Antisepting Dusting Powder (For Drying and Healing Sores)	Per Doz.	8.00

Our Family Van Remedies are as follows:—

Pine and Tar Cough Syrup	Big 4 Liniment
Purgative Pills	X Ray Liniment
Little Liver Pills	Cholerine Mixture (Diarrhoea)
Porous Plasters	Headache Powders
Stomach Bitters	Sarsaparilla
Laxative Cold Tablets	All Healing White Ointment

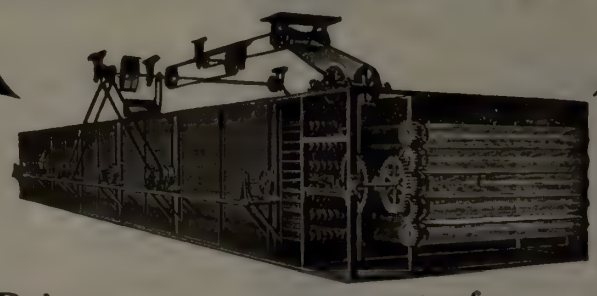
All Drugs and Patent Medicines at Market Prices.

Mail orders solicited — Prompt shipments made.

A. H. JOHNSON WHOLESALE DRUGGIST

Collingwood, Ontario

PROCTOR VENEER DRYER



Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

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Are made in over two hundred styles and combinations to meet every known requirement. We will assume entire responsibility in selecting the proper styles and combinations of our packings to work successfully and economically under any stated condition; and if goods are not wholly satisfactory to purchaser we will refund promptly the cost of same. A card will bring our new catalog which fully describes our various styles of packings.

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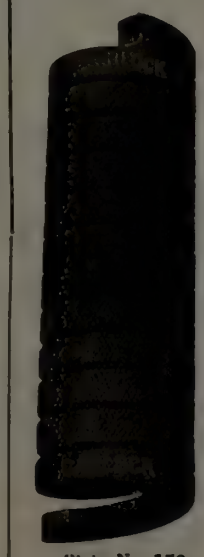

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Hamilton, Ontario

Branches: Calgary Montreal

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Ideal Saws FOR Frozen Timber

Hoe Chisel Tooth Saws

are ideal for Hardwood, Frozen Timber, Soft Wood and for every purpose to which a good saw may be put. They are used by thousands of progressive lumbermen in every part of the world. Evenly tempered. Send for our illustrated book showing how to care for saws and giving prices and descriptions of Hoe Saws.

R. HOE & CO.

504-520 Grand Street
NEW YORK CITY

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better.	$50 00	52 00
1½ inch No. 1 cuts and better.	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
4-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing ..	35 00	36 00
1 x 12 common and dressing...	38 00	40 00
1 x 10 and 12 mill cull stocks.	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out.	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	40 00
1 x 8 box and common		30 00
1 x 10 inch box and common.		32 00
1 x 12 inch box and common.		32 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	30 00	32 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill run 1-in. and 2-in.	28 00	30 00
Spruce mill culls	25 00	26 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		22 00
1 x 6-in. x 9 to 16 ft.		26 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		27 00
2 x 4 to 12 in., 12 and 14 ft. ..		26 00
2 x 4 to 12-in., 18 ft.		30 00
2 x 4 to 12-in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in. B.C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		36 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		37 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		37 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		38 00
10x20, 18x20, up to 32 ft.		38 50
6x18, 8x18, up to 32 ft.		38 50
6x20, 8x20, up to 32 ft.		39 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain..		39 00
Fir flooring, 1 x 4, edge grain..		42 00
Fir flooring, 1 x 4, flat grain ..		33 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1, 4-ft. pine lath...		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath.		4 25
1½-in. mill run hemlock lath..		4 00
XX B. C. cedar shingles		2 55
XXX 6 butts to 2-in.		3 50
XXXXX		3 95

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60	00
Ash, white, No. 1 common	45	00
Ash, brown, 1sts and 2nds, 4/4	50	00
Ash, brown, com. and bet.....	40	00
Ash, brown, 1sts and 2nds, 6/4 & 8/4..	60	00
Birch, 1st and 2nds, 4/4	44	00
Birch, No. 1 com. and bet., 4/4	35	00
Birch, 1st and 2nds, 6/4 and 8/4	46	00
Birch, 1st and 2nds, 10/4 and 12/4....	60	00
Birch, 1st and 2nds, 16/4	62	00
Basswood, 1sts and 2nds, 4/4	48	00
Basswood, No. 1 com. and bet., 4/4....	35	00
Basswood, No. 2 and 3, common	21	00
Basswood, 6/4 and 8/4, 1sts and 2nds.	48	00
Basswood, 6/4 and 8/4, com. and bet..	40	00
Basswood, 4/4, No. 2 com. and bet....	34	00
Soft elm, 1sts and 2nds, 4/4	40	00
Soft Elm, No. 1 com. and bet., 4/4	35	00
Soft Elm, No. 2 and 3 common	19	00
Soft Elm, 6/4 and 8/4, 1 and 2	45	00
Rock Elm, 1sts and 2nds, 6/4 x 8/4...	55	00
Rock Elm, No. 2 com. and bet. 6/4 and 8/4	40	00
Soft Maple, 1sts and 2nds, 4/4	33	00
Soft Maple, com. and bet., 4/4	25	00
Soft Maple, 6/4 & 8/4, 1sts and 2nds..	35	00
Hard Maple, 1sts and 2nds, 4/4	40	00
Hard Maple, common and better, 4/4..	33	00
Hard Maple, 12/4 & 16/4, 1sts and 2nds	50	00
Red Oak, plain, 1sts and 2nds, 4/4	62	00
Red oak, plain, No. 1 com., 4/4	43	00
Red Oak, plain, No. 2 com., 4/4	32	00
Red Oak, plain, 1sts and 2nds, 6/4 & 8/4	68	00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	75	00
White Oak, plain, 1sts and 2nds, 4/4..	62	00
White Oak, plain, No. 1 com., 4/4.....	42	00
White Oak, plain, No. 2 com., 4/4	32	00
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	60	00
Red and White Oak, plain, No. 1 com. 5/4 and 6/4	45	00
Red and White Oak, plain, No. 2 com, 5/4 and 6/4	35	00
Red and White Oak, plain, 1sts and 2nds, 8/4	70	00
Red and White Oak, plain, No. 1 com. 8/4	50	00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80	00
White Oak, ¼ cut, 1sts and 2nds, 4/4	80	00
White Oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	92	00
White Oak, ¼ cut, No. 1 common	57	00
Hickory, 1sts and 2nds, 4/4	70	00
Hickory, 6/4 and 8/4, 1sts and 2nds. ..	75	00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. and 1½-in. x 8-in. & up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up...	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips.....	29 00	30 00
Pine, No. 1 dressing shorts	24 00	26 00
Pine, 1-in. x 4-in. s.c. strips.....		30 00
Pine, 1-in. x 5-in. s.c. strips.....		31 00
Pine, 1 in. x 6-in. s.c. strips ...		32 00
Pine, 1-in. x 7-in. s.c. strips.....		30 00
Pine, 1 x 8 in., s.c., 12 ft. to 16 ft.		32 00
Pine, 1-in. x 10-in. M. R.		36 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in..	24 00	26 00
Pine, s.c. and bet. shorts, 1 x 5		24 00
Pine, s.c. and bet., shorts, 1 x 6		26 00
Pine, s.c. shorts, 6'-11', 1"x 10"		30 00
Pine box boards:		
1"x 4" and up, 6'-11'		24 00
1"x 3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	22 00	24 00
Pine, mill culls stock, 1 x 12 ...		26 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		21 00
O. culls r & w p	14 00	15 00
Red Pine, log run:		
mill culls out, 1-in.	20 00	22 00
mill culls out, 1¼-in.	21 00	23 00
mill culls out, 1½-in.	21 00	23 00
mill culls out, 2-in.	23 00	25 00
mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	17 00	18 00
1"x 4" and up, 12'-16'	24 00	26 00
1"x 9"-10" and up, 12'-16'.	25 00	27 00
1¼"x 7" 8-9" and up, 12'-16'	25 00	27 00
1¼"x 10" and up, 12'-16'...	25 00	27 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce, 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock, 1-in. cull	13 00	15 00
Hemlock, 1-in. log run	17 00	20 00
Hemlock, 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood, log run, dead culls out	22 00	24 00
Basswood, log run, mill culls out	23 00	26 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1¼, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals.		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$56	00
1 in., 8 in. and up wide	65	00
1¼ and 1½ in. and up wide	67	00
2 in. and up wide	70	00
Cuts and Better		
4/4 x 8 and up No. 1 and better	52	00
6/4 x 8 and up No. 1 and better	63	00
8/4 x 8 and up No. 1 and better	65	00
6/4 x 6 and up No. 2 and better	54	00
8/4 x 6 and up No. 2 and better	56	00
6/4 x 6 and up No. 3 and better	48	00
8/4 x 6 and up No. 3 and better	52	00
No. 1 Cuts		
1 in., 8 in. and up wide	42	00
1¼ in., 8 in. and up wide	59	00
1½ in., 8 in. and up wide	59	00
2 in., 8 in. and up wide	62	00
2½ and 3, 8 in. and up wide	75	00
4 in., 8 in. and up wide	85	00
No. 2 Cuts		
1 in., 6 in. and up wide	34	00
1¼ in., 6 in. and up wide	47	00
1½ in., 6 in. and up wide	47	00
2 in., 6 in. and up wide	47	00
2½, 3 and 4 in., 6-in. and up wide	62 00	65 00
No. 3 Cuts		
1 in., 6-in. and up wide	24	00
1¼ and 1½ in., 6-in. and up wide....	33	00
2-in., 6-in. and up wide	33	00
2½, 3 and 4-in., 6-in. and up wide	43 00	48 00
Common and Dressing Mill Run		
1-in. x 4-in.	29	00
1-in. x 5-in.	29	00
1-in. x 6-in.	30	00
1-in. x 8-in.	31	00
1-in. x 10-in.	33	00
1-in. x 12-in.	35	00
1 in. x 13 in. and up	35	00
1¼, 1½ and 2 in.	32	00
No. 1 Barn		
1 inch	34 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00
No. 2 Barn		
1 inch	30 00	36 00
1¼, 1½ and 2-in.	32 00	36 00
2½ and 3-in.		38 00
No. 3 Barn		
1 inch	29 00	33 00
No. 1, 1, 1¼, 1½, 2-in.		29 00
Box		
No. 1, 1, 1¼, 1½, 2-in.	24 00	27 00
No. 2, 1¼, 1½, 2-in.		24 00
Mill Culls		
Mill run culls, 1-in.		23 00
1, 1¼, 1½ and 2-in.		24 00
No. 2	17 00	18 00
Lath		
No. 1, 32-in. pine		1 85
No. 2, 48-in. pine		4 60
No. 1, 48-in. pine		5 00
No. 3, 48-in. pine		4 15
Hemlock Lath, 48-in.		4 15

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension.	S. 1 S. and 1 E.			
	6 ft.	8 ft.	10 ft.	14 & 16 ft.
2 x 4, 6, 8 ..	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.

2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 4-6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12; 8 16 ft.	28 50
2 x 10 and 2 x 12; 18, 20, 22 ft.	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50
No. 1 Common Boards.	
4 inch	23 00
6 inch	25 50
8–10–12 inch	27 50
Mixed widths	26 50
Flooring.	
4 or 6 inch No. 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	26 00
Shiplap—Finished.	
6 inch	24 00
8, 10 and 12 inch	25 00
Siding.	
6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00
Lath.	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed) ...	4 50

PINE—ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 10
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6x 6 in.; 8-16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft. ...	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft. ..	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft. ..	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
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3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft. ..	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft. ..	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft. ..	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	41 00
Nos. 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	38 00
Nos. 1 and 2, 1 x 4 in., or 6 in., F. G.	32 00
No. 3, 1 x 4 in. or 6 in.	29 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ⅜ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers, 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	55 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 54)

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No. 2 Moulding 5/4	52 00
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No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

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	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	34 - 35	21 - 23	13 - 15
5/4 to 8/4	37 - 38	24 - 25	14 - 15
10/4 to 16/4	43 - 45	31 - 33	20 - 22

RED BIRCH

4/4	45 - 47	28 - 30	14 - 16
5/4 to 8/4	46 - 48	30 - 32	16 - 18

SAP BIRCH

4/4	41 - 43	28 - 30	18 - 20
5/4 and up	41 - 43	28 - 30	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	34 - 36	23 - 25	15 - 17
Thicker	34 - 36	25 - 28	18 - 19

PLAIN OAK

4/4	50 - 52	31 - 33	19 - 21
5/4 to 8/4	52 - 54	33 - 35	21 - 23

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	51 - 53	28 - 30	18 - 20
10/4 and up	64 - 66	40 - 42	20 - 22

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White pine uppers, 1 to 2 in.	98 00
Selects, 1 to 2 in.	88 00
Fine common, 1 in.	68 00 70 00
Fine common, 1¼ to 2 in.	72 00 74 00
No. 1 Cuts 1 in.	55 00
No. 1 Cuts 1¼ to 2 in.	60 00 64 00
No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1¼ to 2 in.	48 00 50 00
Barn Boards, No. 1, 1 x 12	48 00 50 00
No. 1, 1 x 10	38 00 40 00
No. 1, 1 x 8	37 00 38 00
No. 2, 1 x 12	38 00 40 00
No. 2, 1 x 10	37 00
No. 2, 1 x 8	35 00
No. 3, 1 x 12	31 00 32 00
No. 3, 1 x 10	30 00 31 50
No. 3, 1 x 8	30 00 31 00
Canadian spruce boards	25 00 27 00
Spruce, 10 in. dimension	28 00 30 00
Spruce, 12 in. dimension	29 00 31 00
Spruce, 9 in.	29 00
Spruce, 8 in. and under dimen.	28 00
10 and 12 in. random lengths, 10 ft. and up	29 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00 24 00
All other random lengths, 7-in. and under, 10 ft. and up	21 00 22 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	22 50 23 00
1 x 2 and 1 x 3 fencing, p 1s clipped and bundled	22 00
1½-in. spruce laths	4 25
1½-in. spruce laths	3 80 4 00

New Brunswick Cedar Shingles

Extras	3 50 3 60
Clears	3 30
Second Clears	2 30 2 40
Clear whites	2 00 2 20
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Extra 1s (Clear whites out)	1 50
Red Cedar Extras, 16 in. 5 butts to 2 in.	4 00
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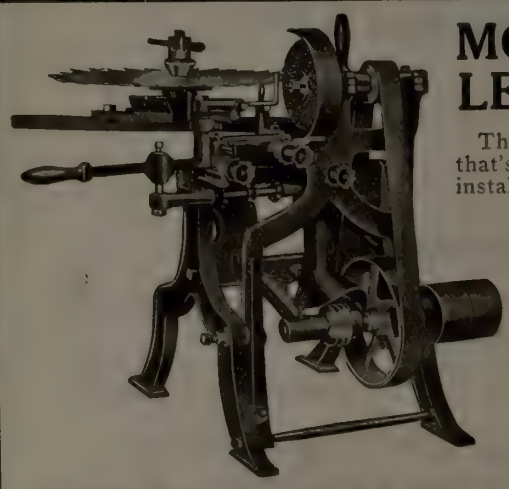

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Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

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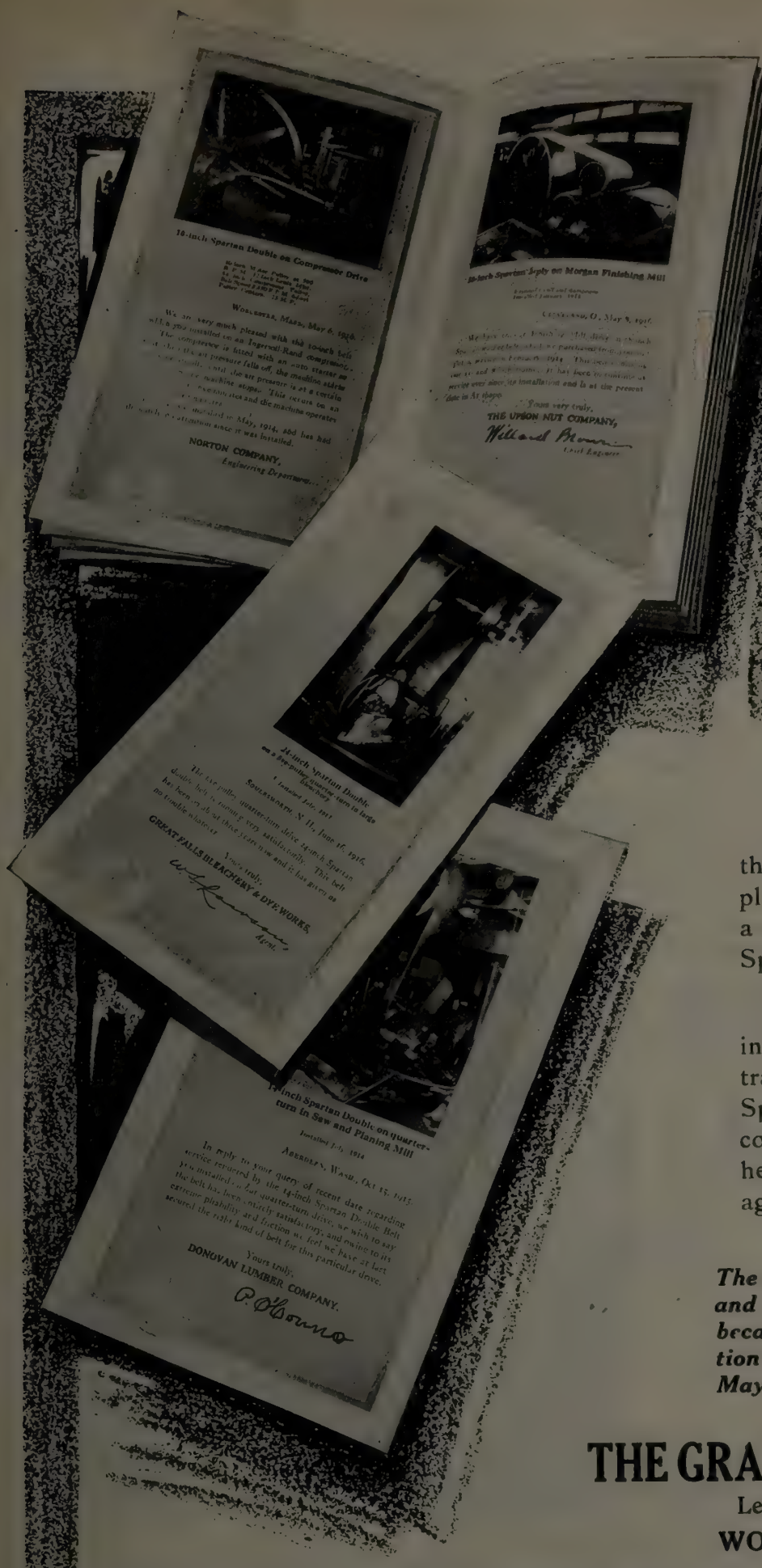
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Hettler Lumber Co.. Herman H.
Long Lumber Company
Mason, Gordon & Company
McLennan Lumber Company
Montreal Lumber Company
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Muir, Kirkpatrick & Sharpe
Oliver Lumber Co.
Parry Sound Lumber Co.
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Summers. James R.
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Garlock Packing Company
Gutta Percha & Rubber Company

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Canadian Link-Belt Company, Ltd.
Canadian Pulp Mill Machinery Co.
Hamilton Company, William
Jeffrey Manufacturing Company

PULP STONES
Can. Boomer & Boschert Press Co.
Canadian Pulp Mill Machinery Co.

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Smart-Turner Machine Company
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Gartshore, John J.

RESAWS
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ROPE
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Simonds Canada Saw Company
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Dunbar Engine & Foundry Co.
Fisher & Davis Mfg. Company
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Huther Bros., Saw Mfg. Company
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Machinery Company of America
McLennan Foundry & Mach. Works
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Mershon & Company, W. B.
Parry Sound Lumber Company
Payette & Company, P.
Smith Foundry Company.
Waterous Engine Works Company
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Blanchard Lumber Company
Campbell-MacLaurin Lumber Co.
Canadian Western Lumber Company
Fraser Limited
General Mercantile Company
Gillespie, James
Harris Tie & Timber Company
Heeney, Percy E.
Long Lumber Company
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(Continued on page 60)

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It is Made in Canada. What We Make We Guarantee.

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Head Office and Factory TORONTO Fraser Avenue

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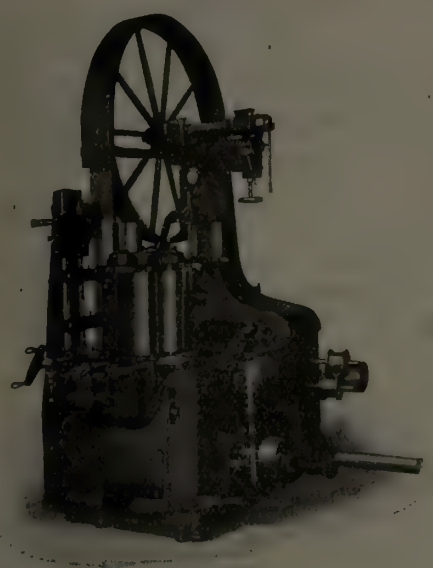
Fast Feed—Smooth Sawing

a Specialty—not a Side Line BAND RESAWS



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54-IN. Band Resaw

Jeanerette, La.,
Jan. 1, 1917.

Gentlemen,—Relative to the New Standard 54-in. Band Resaw, would advise that same is giving excellent satisfaction.

We are resawing 4/4 random width Cypress and Tupelo at an averspeed of 90 feet per minute, and ½-in. x 6-in. bevel siding at 120 feet per minute, and it is doing nice, smooth work.

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On a Quality Basis

Use as much care in its selection as you would in choosing the lumber that goes into your products.

No brick gives the best results for every purpose. The brick you would use for your refuse burner may not give you the best results for your Dutch Oven.

We Manufacture the Following Well Known Brands

"Elkco," "Elk Steel," "St. Marys," "Keystone" and "Rotex"

When sending us your inquiries, specify for what purpose you need the brick.

We Make a Specialty of

REFUSE BURNERS, BOILER SETTINGS, KILNS, DUTCH OVENS, ETC.

Catalog sent upon request.

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HIGH GRADE FIRE BRICK and CLAY

Sun Life Bldg., Hamilton, Canada

Representatives for Maritime Provinces:
RHODES, CURRY COMPANY, LTD., Head Office, AMHERST, N. S.
Branches at Halifax, Sydney and New Glasgow, N.S.

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

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Carbic System

This Carbic Light will burn for twelve hours steadily, giving 2,000 candle power without refilling with Carbic Cakes—the handy new system of compressing raw Carbide. For Logging, Bush Work, Camp Lighting and Saw Mill there is no artificial light to equal "Carbic." We have sold

Modern THE Carbic LIGHT Lighting

hundreds to Lumber Camps, Military Camps, Corporations, etc., and every one gives perfect satisfaction. Expense of operation is small. Light can be regulated with our patented burner. Safe to operate and handle. Write for interesting catalogue and prices to the lumber trade.

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New Ontario Colonization Co.
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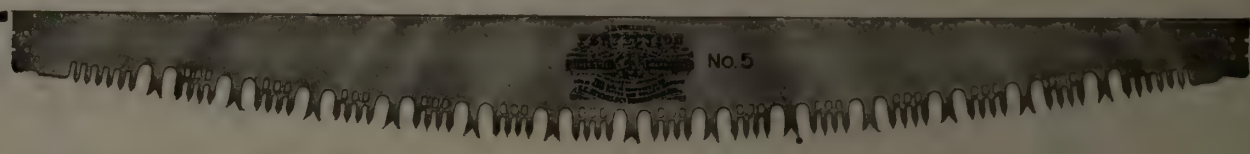

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STERLING STEEL SAWS

Give the results you are looking for. They run easier, cut faster and are guaranteed to hold their edge longer than any other make of saw.

Each one is an investment that will bring large returns.

Try them and see—you'll not be disappointed.

Specify ATKINS on your next order — It means economy.

E. C. ATKINS & CO.

Factory: HAMILTON, ONT. **Branch: 109 Powell St., VANCOUVER**

J. J. TURNER & SONS

PETERBOROUGH, ONT.

Government Contractors and the largest Manufacturers and Dealers in Canada of

Lumbermen's Tents, Bed Ticks, Grey Blankets, Nose Bags, Waterproof Goods, Steel Ranges and General Camp Outfits.

Write for Catalogue. **Prompt shipments.**

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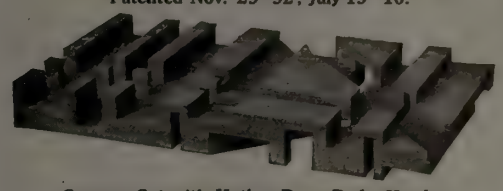

Grooves Cut with Huther Bros. Dado Heads

Fits Any Saw Mandrel

A Huther Bros. Dado Head consists of two outside cutters and enough inside cutters to make the required cut. This Head will cut perfect grooves, with or across grain, any width. It is an easy Head to keep in perfect condition, has a simple quick adjustment, and may be enlarged any time after purchase. Sent on approval and if not satisfactory return at our expense.

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1103 University Ave.
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Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

MONTREAL LOCOMOTIVE WORKS, LIMITED,

DOMINION EXPRESS BUILDING, MONTREAL, CANADA.

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

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VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

The Peter Hay Knife Co., Limited

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MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

This mark on your saw mill machinery is an indication that your lumber manufacturing equipment is the best and most economical money can buy.

Steam Feeds

The illustration gives a good general idea of our direct acting, or shot gun, steam feed, which we build in the following sizes: 8 in., 10 in., 11 in., 12 in. and 14 in. bore.

The cylinders are made in 6-foot sections, and are bored to exact diameter. The flanges on cylinders are faced perfectly true, and finished to templets, so that each section is interchangeable. The flanges are also turned on the outside which is a great convenience for levelling or lining the feed, when placing same in mill. For each end of the completed cylinder we furnish short pipes, which are long enough to reach the valves and permit the valve connections and steam feed to nicely clear the floor timbers.

The front cylinder head is our improved pattern.

The piston rod is made from double thickness, seamless steel tubing, of extra large diameter. It is made in two or more sections, according to length of feed.

Our illustrated catalogue contains full details. A copy will be sent you on request.

E. Long Mfg. Co., Limited

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In Big Mills Everywhere in Canada

In Canadian mills where quality and quantity are equally important, Waterous Sawmill Equipment is used as a matter of course.

WATEROUS SAWMILL MACHINERY

As an example, the Spanish Mills Lumber Co., of Cutler, Ont., illustrated above, are using two Waterous 8 ft. New Model Bandmills for handling their daily cut of 125,000 feet in ten hours. More than fifty other large Canadian mills have installed these machines within the past five years.

One of them writes :

"We have sawed 20,000,000 feet this past season—our logs run about 40 to the thousand—and have not broken or cracked a saw."

Only good equipment will show a record like this.

Remember, we build everything for the sawmill. Whether you are running a portable outfit or are cutting 150,000 feet a day, Waterous Equipment is the best for your work.

It Lasts Longer if "Waterous-built."

Waterous

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$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station;** packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our TROJAN BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c** per lb.; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

Tell Us

YOUR NEEDS, for we cannot anticipate them.

Whether you LUMBER extensively or only on a moderate scale, you can place orders with us advantageously.

Try Us

At least give us an opportunity of showing how we can serve you. Prompt attention to all communications, whether enquiries or orders. Such is only proper.

We assure you that your interest in our products will

Please Us

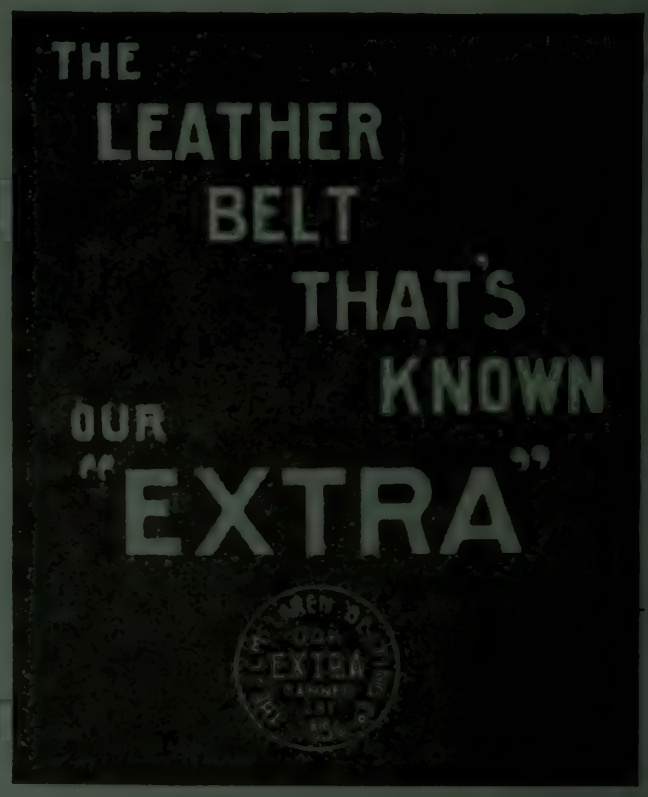
Our Motto:—"Only Good Goods."

Our Business:—**Founders, Machinists, etc.**

Specializing in Lumbering, Contracting and Farming Equipment.

The Smith Foundry Co., Ltd.

FREDERICTON, New Brunswick



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General Mill Supplies MONTREAL

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The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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Wood Worker

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SAVE MAINTENANCE COST

Bronze to Bronze at the Joint

Your Jobber Sells Them

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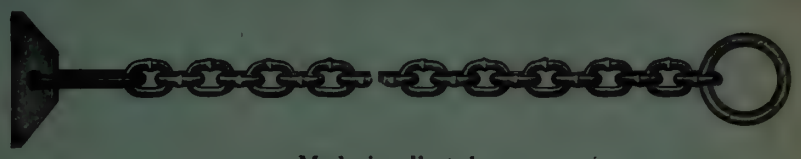

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We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada — Write to — Fully Guaranteed

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A BRAND TO MEET ANY OF YOUR REQUIREMENTS AND SATISFY YOU

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Balata Belting

Waterproof and Stretchless.
The best belt for sawmills.

Manufactured and guaranteed by

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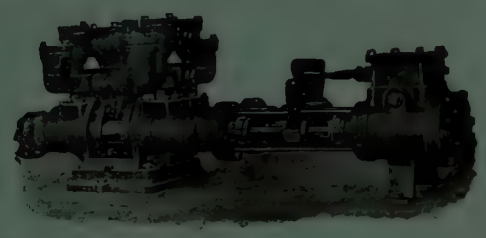

REDUCE repair bills. **INCREASE** efficiency.

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Morrison's "BEAVER" Valves

For high pressure steam uses our "Beaver" valves will fill every requirement perfectly. "Beaver" Globe Valves, Check Valves, Angle Valves, and Cross Valves are made in sizes 1½-inch to 3-inch, all bronze, and sizes 2½-inch to 10-inch iron or semi-steel body, bronze mounted. The Angle Valve illustrated is constructed with outlet under level of seat, leaving no pocket where water may lodge when valve is closed. Can be furnished in stop or adjustable check pattern. Write for complete description and prices of "Beaver" Valves and any of our lines of Brass Goods.

The James Morrison Brass Mfg. Co., Limited
93-97 Adelaide Street West, TORONTO

Beaver Angle Valves
MADE IN CANADA

Alphabetical Index to Advertisers, Page 58 Classified Directory to Advertisements, Page 60

PULLEYS

No Keys

No Set Screws

In Perfect Balance

Lighter

Stronger

Better Belt Surface

The Dodge Standard Wood Split Pulley

The Wood Split Pulley is better than either cast iron split pulleys or steel split pulleys for the following reasons—

The wood pulley is lighter, stronger, better balanced, and provides a very much better belt surface. It costs 33 1-3% less money and provides 50% more returns in horse-power value. It may be run at very much higher speeds with no danger of bursting—also it may be had quicker and in a greater range of sizes.

It costs less to get—less to put on—and less to keep.

We make approximately 300 Dodge pulleys every day—everybody uses them.

There are more Dodge pulleys making ammunition than any other kind—you can get them quick.

Every pulley is thoroughly nailed. Every pulley is guaranteed for Double Belts.

We are Canada's greatest pulley makers.

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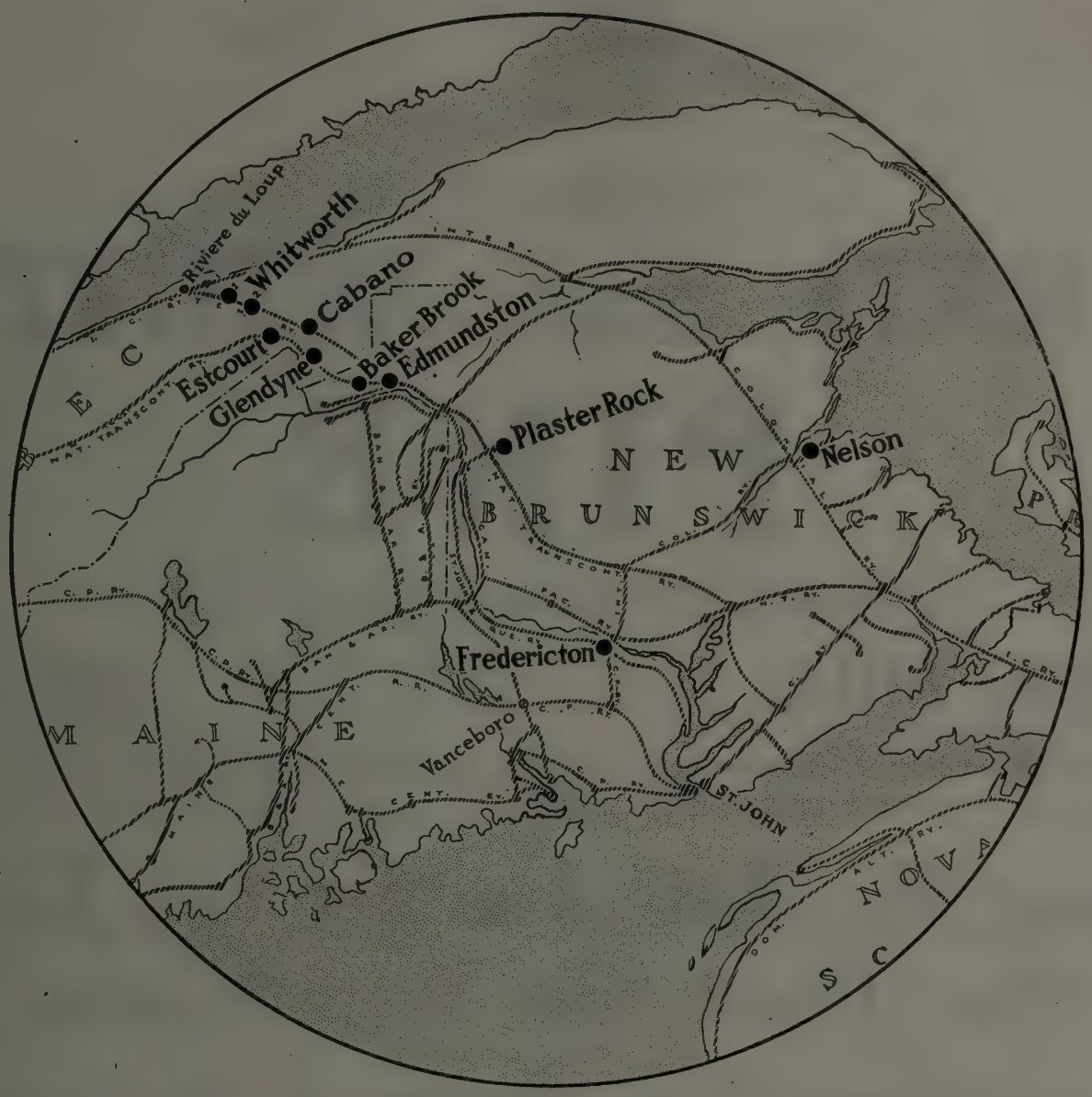
DODGE MANUFACTURING COMPANY

Toronto - - Montreal

Ten Band Mills to Serve You



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Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

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George Gordon & Co.

Limited

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Manufacturers of

RED and WHITE PINE

PLANING MILL **DRY KILN**

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

We Want to Move Quick

50,000 ft.—2x4 and up No. 1 and 2 Red Pine Mill Culls
350,000 ft.—1x4 and up No. 2 Longford Hemlock
150,000 ft.—2x6 and up No. 2 " "
200,000 ft.—2x4 No. 2 " "
15,000 ft.—1x5 No. 1 and up " Hemlock Sidings
30,000 ft.—1x6 10/16 No. 1 " "
8,000 ft.—1x7 10/16 No. 1 " "
30,000 ft.—1x8 10/16 No. 1 " "
5 cars 3X British Columbia Red Cedar Shingles.

Get our prices on the above stock.
They will interest you.

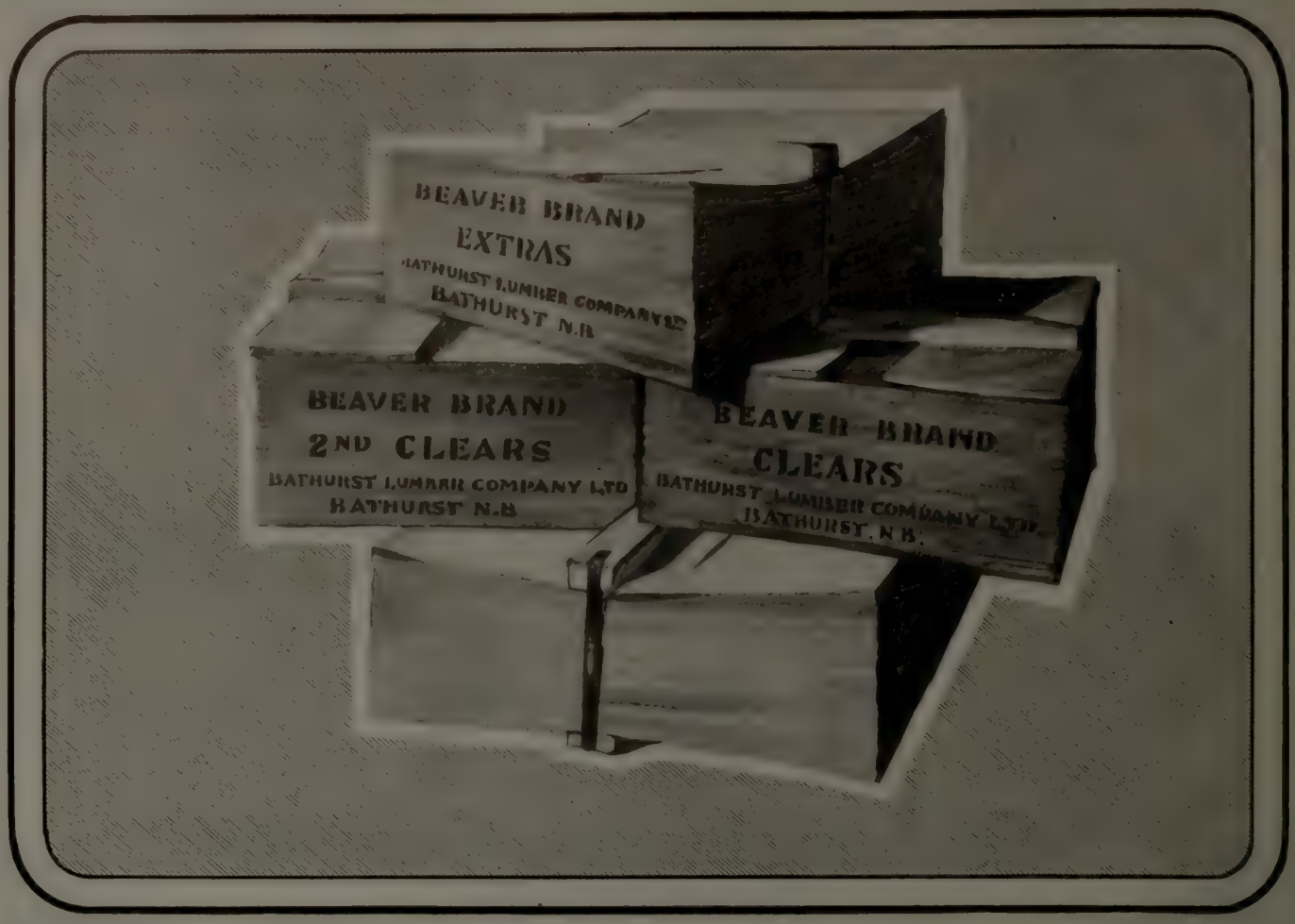
The Long Lumber Company
Hamilton, Canada

Nashwaak Pulp and Paper Company
ST. JOHN, N. B.

Manufacturers of

BLEACHED SULPHITE & LUMBER

(Successors to Edward Partington Pulp and Paper Co., Limited)



Overhead Charges

A certain man returned thanks for a good bed under him, a good supper inside him, and a good roof over him.

He was particularly grateful for the roof.

It let him sleep o'nights.

It did not rattle or strip off in a gale.

Tornadoes tore at it in vain.

Snow and rain could not penetrate it.

It kept the man warm in the winter, cool in summer, dry in wet.

It needed no coat of paint.

It was artistic—better to look upon than the "other kinds."

It made his dwelling look snug and homelike.

On every count it reduced his Overhead Charges.

It was a Shingle Roof of Full Count BEAVER BRAND White Cedar Shingles manufactured by the

Bathurst Lumber Co., Limited

BATHURST, N. B., CANADA

Ask your dealer for

LUMBER

from Horse Shoe Logs

WHITE AND NORWAY PINE

Our White and Norway Pine products are nationally noted for their careful and uniform grading. Horse Shoe Logs have a big reputation to uphold, and they are doing it in a manner that will make you proud of them, same as we are.

HORSE SHOE PRODUCTS
"At Your Service"

Write for prices of Boxes, Box Shooks, Wooden Pails and Tubs, Pine Lath, and Cedar Posts.

C. Beck Manufacturing Co., Limited

Penetanguishene, Ont.

"WE AIM TO SERVE YOU WITH THE BEST"

Murray & Gregory, Limited

Head Office:
ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

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St. John, N.B., St. Camille and Lake Frontier, Que., cutting SPRUCE and PINE Lumber for British, United States and Canadian Markets.

Also

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Manufacturing and Grading Right

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SPRUCE

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Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

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Fir Timbers
Fir Flooring, Ceiling, Mouldings, Etc.

Cedar Shingles XXX, XXXXX and Rite-grade
Cedar Bevel Siding, Barn Boards, Boat Lumber, Etc.

View of our fir mill from log pond, Vancouver, B. C.

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Representative, CHAS. PLANT

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Manufacturers of
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Lumber Lath Pulpwood

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We specialize on cutting to order all sizes of

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Also in Dressing in car or mixed lots 1", 2" and 3" to customers' specifications.

Complete stocks always ready for prompt shipment.

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General Offices: EAST ST. LOUIS, ILLS.

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Annual Capacity 350,000,000 Feet Yellow Pine
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Up-to-date mills and unsurpassed ***SERVICE.***

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Standing Timber

in Large or Small Blocks

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Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

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1 8 ft Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
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1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
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1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
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1 Lath Mill with bolter.
2 Lath Trimming Saws.

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1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

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1 Double Duplex, high pressure Water Pump.
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ROSSED SPRUCE PULPWOOD

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British Columbia Products

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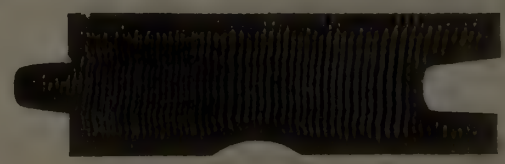

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Flooring
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XX
XXX 16" clears
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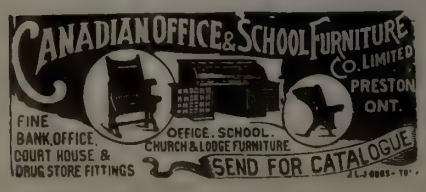
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35,000 ft. 1 inch.
20,000 ft. 1¼ inch
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Good dry stock, 1915-16 sawing. Quality log run, mill culls out.

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Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion

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We offer the following lots of DRY HARDWOOD

100 M 1 x 4/up No. 1 Com. and Btr. Birch.
50 M 1 x 4/up No. 2 Com. Birch.
6 M 5/4 first and seconds Birch.
3 M 6/4 first and seconds Birch.
10 M 12/4 first and seconds Birch.
2 M 16/4 first and seconds Birch.
23 M 6/4 Good Basswood, wide.
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36 M 6 x 12 to 12 x 12, 16/20 ft.

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We have 500 M 3/8 x 1½ 4 ft. Dry Merch. Spruce Lath.

We will be glad to quote the above upon request.

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Limited
VENEERS
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Gentlemen,

Kindly discontinue our little sale ad., one car lumber.

We got fifteen enquiries for the one car.

Yours truly,
C. B. JANES & CO., LTD.
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If an "ad." in our Wanted and For Sale Department will sell lumber for Mr. Janes it will buy or sell for you. What have you to advertise?

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1 x 4-5-6-9 Merchantable
Rough or Dressed

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SPECIAL

No. 1 Spruce, 1 x 4 and 2 x 8.
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Outs of No. 1 Spruce, 1 x 4, 2 x 4, and 1 x 4 to 10 in.
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Mill-run Red Pine, 1 x 4 and up x 10/16 ft.
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A Large and Selected Stock of

Spruce, Pine, Hemlock and Hardwood Lumber, Shingles and Lath

Orders filled carefully and promptly shipped
Write for quotations

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Fir Flooring, Ceiling and Siding.
Clear Fir Finish, rough and dressed.
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OUR SPECIALTY IS
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The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is positively right, and prices will please

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Mills at Craigs on the B.C.E.R.
Shipments by C. P. R., C. N. R., G. N. R., and N. P. R.

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MANUFACTURERS OF
British Columbia Red Cedar Exclusively

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½ x 5 and ½ x 6 Cedar Bevel Siding.
1 x 8 to 12 Clear Cedar Finish, Rough or Dressed.
Wide Cedar Boards.
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Quarter Round, Window Stop and Cove Mouldings.

Full particulars from our Eastern Agents.

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Dressed and Rough Spruce, White Pine and Banksian Pine

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Stearns Quality

Michigan Forest Products

Hardwood, Hemlock, White Pine

LUMBER and TIMBER

40 Million Feet Dry Stock in pile containing a complete assortment for rush shipment.

Grades— GUARANTEED —Quality

Hardwood Specialists

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QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at—Nashville, Tenn. Basic, Va. *Mills at*—Sumter, S.C. Winchester, Idaho

We can ship you promptly any of the above Stock, Carefully Inspected

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New **RAILS** Relaying

12 to 80 pounds per yard.

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Douglas Fir, Spruce, Cedar and Hemlock Lumber

Rough Timbers, Dimension, Flooring, Ceiling, Siding, Interior and Exterior Finish of all kinds including Mouldings. Fir, Spruce and Cedar Lath

Prompt shipment of Fir timbers in all sizes and up to 80 feet in length

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There is a handsome return on any investment in the chemical industry—particularly in the manufacture of those chemicals which we heretofore imported from Germany.

The industry is particularly attractive to lumbermen as many valuable chemicals are obtainable from wood waste by our complete wood distillation and chemical plant.

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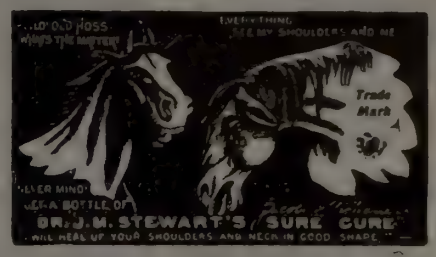
Cables—Blazon, Glasgow—ABC—5th Edition.

Insure your horses against sickness



Why not? You protect your mills against fire by installing fire-fighting apparatus; you protect your employees against accident by the use of machinery guards—then why not protect the health and efficiency of your horses? And how? By keeping in your stables a good supply of Dr. Stewart's Veterinary Remedies.

It may be the means of saving the life of many good horses, and will keep them sound and vigorous at all times.

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Windsor, Ont.

128,350 Laths in Ten Hours

Our Lath-Mill and Bolter have made a test cut in ten hours of 128,350 four foot laths, 1½ in. by ⅜ in., counted, tied and piled.

Four-Saw Bolter

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Petawawa Lumber Co., Ltd., Pembroke, Ont.
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Engineers and Machinists,
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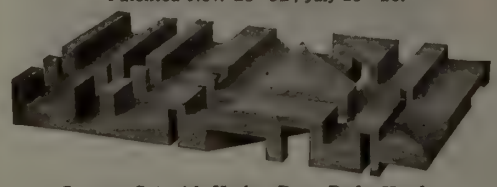

Grooves Cut with Huther Bros. Dado Heads

Fits Any Saw Mandrel

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4 Cars 4/4 L. R. Soft Maple.
1 Car 5/4 No. 1 Common and Better Soft Elm.
2 Cars 4/4 No. 2 Common and Better Black Ash.
1 Car 6/4 No. 1 Common and Better Black Ash
2 Cars 4/4 L. R. Mill Culls out Canadian Plain Red Oak, real nice stock.
Also 5/8 in. and 1 in. Spruce Crating

I want to buy 4/4, 5/4 winter sawn Basswood

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Canadian Representative D. E. HEWITT LUMBER CO., Huntington, West Va.

For Speed, Ease and Economy in Bucking and Felling

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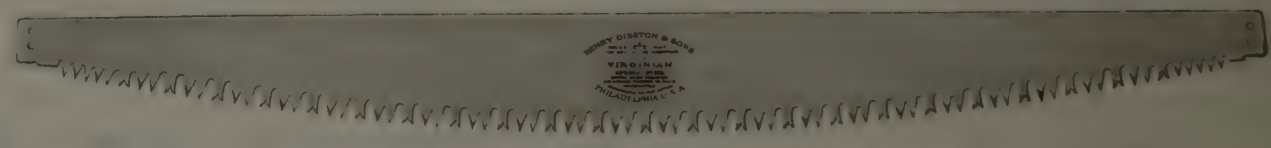

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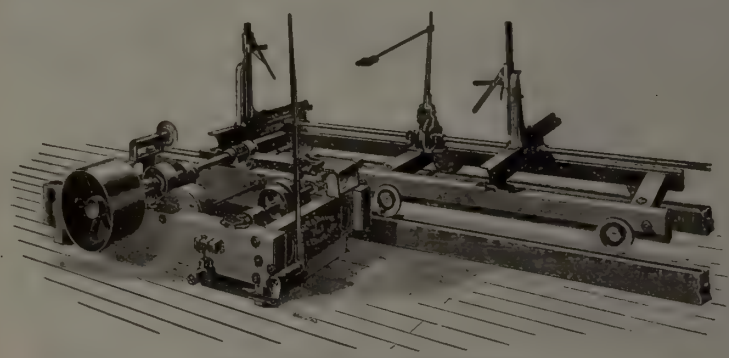

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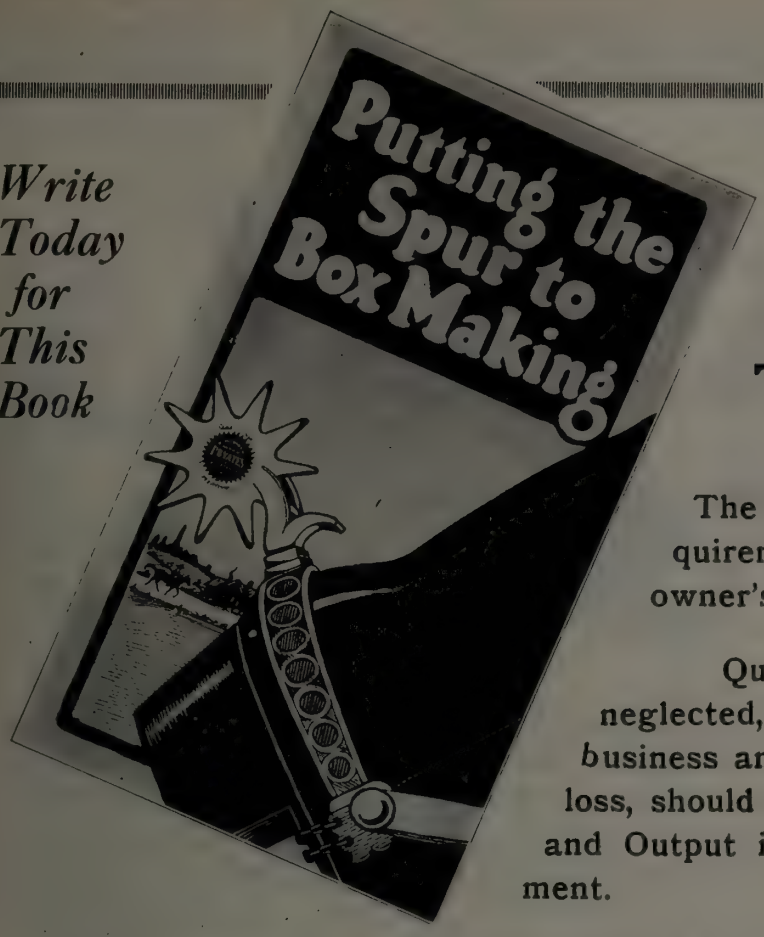

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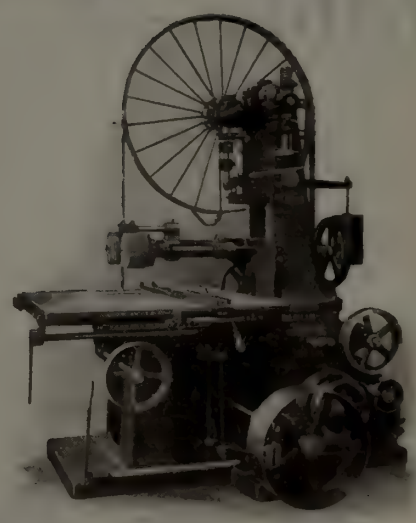

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THE WILLIAM DAVIES COMPANY LIMITED

MONTREAL TORONTO WINNIPEG

Canada Lumberman & Wood Worker

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.
Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N. Y., under the Act of Congress of March 3, 1879.

Vol. 37 Toronto, March 15, 1917 No. 6

May Feature Wood at C.N.E.

The lumber industry and trade in Canada have done little to advertise themselves to the one man with whom their advertising would have most weight, the ultimate consumer. To get the most out of their business and out of their other advertising, they ought to make an advertising attack upon the man who uses wood in its various manufactured forms. It seems like a rather hazy proposition at first—advertising the use of wood—as we are all so accustomed to think of wood as an essential raw material, the use of which can only increase or decrease with the demand for finished articles made of wood, and to imagine that it is the other fellow's duty to advertise the finished product. But there is another side to it all, and the substitute producer, having been early in the field with his advertising of cement, steel and other building materials has realized this and has already made a hole in the lumber business that can never be filled in. To prevent still further serious loss of trade, lumbermen in the United States have for a year or two past been developing a number of extensive advertising campaigns and getting results they had scarcely dared to hope for.

One of the effective ways of advertising the use of wood is by means of exihibitions, and in this line the trade in Canada have been far behind the times. In Toronto, for instance; opportunity has been staring them in the face for years, and yet there has been no concentrated attempt to use the facilities offered by the Canadian National Exhibition. A few manufacturers of interior trim, and one or two others, have had exhibits there, but the possibilities of exhibiting the "use of wood" can scarcely be said to have been touched. A lumberman visiting the exihibition might happen to see a few scattered exhibits of wood, but neither he, nor the visitor to the fair in general, would suspect that there is a lumber industry in Canada, employing many thousands of men, and ranking near the top of the list of Canada's producing industries.

It may be that in a few years this will be altered. The Lumbermen's Section of the Toronto Board of Trade, recently succeeded in electing one of their number to membership in the Exhibition Association, and he has been honored by further election to the Board of Directors. Following this up, he has stirred up such interest among the trade in Toronto that they are considering the advisability of seeking to have a lumbermen's day at the Fair and are discussing the possibility of having the lumber and wood exhibits centralized, so as to make a definite impression upon visitors to the fair. There are great possibilities in such a plan. It is not at all improbable that it would lead to the development of one of the most striking and instructive sections of the great exhibition, and even come some day to be housed in a fitting building of its own. The interest taken by the public in such a feature would be extensive. The British Columbia Government have pioneered the advertising of wood in Canada by means of exhibitions, and their exhibit would be a strong feature of a centralized wood exhibit. Other provincial governments would also undoubtedly fall in line. Some of the important lumber associations in Canada and the United States would join in and the movement would quickly grow. We imagine, moreover, that the public would not be the only ones to benefit. Canadian lumbermen would receive an object lesson in the benefits of publicity and co-operation which would probably end in their adopting some of the progressive methods of their fellow lumbermen in the United States. We hope that the idea of featuring wood at the Canadian National Exhibition will be pushed vigorosuly.

Great Britain's Import Restrictions

The probable effect of the prohibition of lumber importation into Great Britain, except under special license, is being widely discussed by Canadian exporters. Until the export season has advanced, the exact results will be difficult to estimate, but there is a tendency among exporters to believe that the effect will not be serious to the Canadian trade, as the urgency of Great Britain's need for our lumber is so great and the sources of supply from Europe have been so extensively restricted by the war, which has practically cut off the supplies from Russia, whence, previous to the war, Great Britain obtained by far the largest portion of her wood goods.

The latest information received from Great Britain is to the effect that the restriction of imports is devised largely with a view to controlling rather than prohibiting them. This being the case, Canadian exporters may feel relieved, as it is more than probable that the situation will work out to their benefit rather than to their detriment. The restrictions apply to all countries alike, but it is believed that in their working out they will be made to apply against the Canadian trade as little as possible consistently with the chief object of the restrictions themselves, namely, the economizing of vessel space for ocean shipments.

It is important, when considering this matter, to examine the statistics of imports into Great Britain. During 1916 the imports of sawn and planed goods amounted to 637,668 loads from Russia, 1,530,767 loads from Sweden, and 801,292 loads from Canada. During 1913, the year previous to the outbreak of war, the figures were as follows: Russia, 3,362,344 loads; Sweden, 1,370,998 loads; Canada, 961,539 loads. A comparison of these figures shows that there has been a falling off in imports amounting to 2,725,154 loads. A load is the equivalent of 50 cubic feet. Sweden has increased here share by some 160,000 loads. Russia's share decreased by 2,724,676 loads, and Canada's share decreased by 160,247 loads. Practically the whole decrease has been in the case of Russia, due naturally to the occupation of that country's population with war activities, resulting in the closing down of the mills. These figures would indicate that Sweden has intensified her exports to the limit under present conditions, and that, if changes are contemplated in connection with the sources of supply, they must be at the expense of Sweden rather than that of Canada.

A prominent Montreal lumberman, in an interview upon the situation, develops these ideas as follows: "A huge proportion of the wood that was taken to Britain last year was for war purposes. There is no embargo against wood for war purposes, and the Admiralty will probably go on taking ships laden with lumber over to Britain. The army uses great quantities of wood for sheds, temporary barracks,

temporary hospitals, and for packing cases; miles of the trenches are lined with wood; dugouts are reinforced with wood; wooden footpaths are made across the Somme mud. There is probably enough lumber in England at the present time to last eight months or a year. It was always like that—Britain never runs short. Sometimes there is a year's wood supply on hand. But even if the Admiralty prefers not to risk ships on the lumber trade for a few months, the market for Canadian lumber will not be eased. Canadian lumbermen have enough orders to keep prices at their present level for a year or more. In fact, I don't think prices will ever fall to what they were before the war. About 25 per cent. of the lumber exported by Canada to Britain is hardwood. A little more than $3,000,000 worth of Canadian hardwood, mostly birch, was imported by Britain last year. The embargo will operate chiefly against this product, of course, because it is little used by the army. But it will not affect the price of furniture and other hardwood goods."

The Purchasing Power of Lumber

The high cost of living may be examined from a great many angles, but, after all is said and done, the most practical angle is the one from which a man can see how much of the things he needs can be bought with what he earns; or, carrying the idea to its logical limit, how much he can obtain in exchange for what he produces, whether his output is labor or goods. A manufacturer is inclined to pay too much attention to the margin of profit beyond his producing and marketing cost, and too little attention to what he can buy with the proceeds of his own products. It is instructive to look at the lumber trade from this angle and consider, not so much what the price of lumber may be, as what its purchasing power is.

Measured in terms of other commodities, the purchasing power of lumber has decreased remarkably in the last ten years. This is simply another way of stating that, while lumber prices have remained practically stationary, the prices of everything that competes with lumber, or that the lumber manufacturer buys, have been mounting higher and higher.

Some recent investigations made by the National Lumber Manufacturers' Association as to what the ultimate consumer pays for lumber, compared with what he gets for the commodities he produces, are very much to the point.

In a typical Northern town the comparison is as follows:

Sold to farmers:

	1906.	1916.
No. 1 hemlock piece stuff	$22.00	$26.00
No. 1 hemlock shiplap (clears), boards	24.00	28.00
Red cedar shingles	3.75	4.00
White cedar shingles	3.25	3.75

Paid to farmers:

	1906.		1916.	
Barley	$ .45 to	$ .50	$1.05 to	$1.10
Potatoes	.35	.50	1.00	1.50
Milk (per 100 pounds)	1.00	1.10	1.60	2.40

Twenty years ago 10 bushels of corn would buy 21 pounds of coffee; now it will buy 35.

Twenty years ago 10 bushels of wheat bought 200 feet of stock boards; now you can get 500 feet of lumber for that wheat.

Twenty years ago 10 bushels of oats bought 64 pounds of nails. To-day it would buy 104. In 1896 it would settle the bill for 500 shingles, and now you can buy twice as many with the oats.

Ten bushels of potatoes twenty years ago would buy three sacks of patent flour; now it would give you 6 1/3 sacks.

Canada's Railway Crisis

The situation that has developed in connection with the inability of the railways to handle the transportation of freight in Canada calls for immediate and drastic measures on the part of the Dominion Board of Railway Commissioners and on the part of the railways themselves. Unless those who are in authority in the railways make up their minds to face the situation frankly, admit their present inability to handle the company's business, and decide from now on to reverse their policy of seeking to make profits by a combination of high charges and minimum service, the situation will continue to go from bad to worse. Nothing short of a decision in favor of devoting earnings to improving their equipment until it is sufficient for the commerce of the country will be of any avail. It is time that the railroads stopped spending their money and the brains of their best men in seeking means for persuading the railway commission to allow them to increase their freight charges and devoted themselves to the other side of their problem.

The whole industrial life of Canada to-day is more or less strangled by the failure of the railways to cope with the volume of traffic offering. For many years they have been concentrating their energies towards increasing revenue from freight traffic, using any and all methods possible, such as direct advances, insidious elimination of commodity rates, changes in classification, reduction or withdrawal of service, etc. For a time we deceived ourselves with the hope that the Dominion Board of Railway Commisioners would do something to put a stop to all this, but the commission apparently has attached great weight to the argument of the railway companies "that they need the money." As a result, railway earnings have been increasing by millions of dollars annually, but apparently no control has been exercised by the commission over the manner in which these increased earnings shall be expended.

Is it not time that the Dominion Board of Railway Commissioners gave less consideration to the claims of the railway companies for increased freight rates and attached greater importance to the interests of the shipping public and to the consumers who suffer because of the congestion of traffic? Surely such a situation as that which exists to-day, brought about in great measure by the selfish policy of the railway companies in the past, would justify the commission in adopting strong measures to compel the railways to make a serious effort to handle the business offering. Something should be done without a day's delay in order to force the railways to spend money, even lavishly, upon improving their facilities for handling freight, so that within a reasonable period of time they may be able, by speeding up their normal service, to provide against delay during periods of stress. At present their policy seems to be to give the minimum of service at the maximum of price, maintaining, with this idea in view, only a sufficient quantity of equipment to handle their business during normal times—though even then in a manner which gives them nothing of which to be proud. The result is that the least stress upon their service causes congestion.

The public has suffered for years in this connection, and to-day the railway companies have fallen down so lamentably that the only remedy available for immediate betterment of the situation is that the public should be made to suffer still more by a heavy curtailment of the number of passenger trains, which, although it gives some relief, falls heavily upon the public, who are thus deprived of accommodation, although the railways suffer an almost negligible decrease in their passenger revenue.

It will take many years to accomplish anything definite in the way of bringing the railway facilities of the country up to what the trade of the country requires, and it is therefore all the more urgent that vigorous measures should be adopted with this end in view immediately. Now that the case is so clear, it should be an easier matter to introduce such measures than it would be at a later date, when conditions may have reverted more nearly to normal. Undoubtedly, unless

something is done at once, the lumber industry of Canada, along with every other important industry, will suffer loss which will offset many times the cost to the railway companies of such improved service. What we cannot understand, not being railroad men ourselves, is how the railway companies ever came to adopt a policy of starving their traffic, when, according to all the economic laws we ever heard of, a more efficient service would bring with it rewards more than ample to justify it.

Association Success Obliterating Individualism

The progress made of late years in association work in connection with the lumber business, both in Canada and the United States, has been remarkable, though not by any means difficult to understand. The time seems to have arrived when the old habits of individualism in regard to making and selling lumber are being rightly understood; taken down from their high pedestal of worship and labelled "out of date." In fact, the old-time individualist is learning at last, what many of his confreres found out years ago, that the man or the firm who persists in ploughing a lonely furrow is really trailing in a rut, while others, by co-operating, are opening up possibilities of which he never dreamed. Individualism has had its day in the lumber business—far too long a day, indeed, but co-operation, as exemplified in the modern trade association, has supplanted it permanently.

A good description of the situation—one of the best we have read—was given by Thorpe Babcock, retiring secretary of the West Coast Lumbermen's Association, at its recent annual meeting. "Milestones in association progress are the tombstones of individualism," he said, and he continued, in part, as follows:

"I plead with you to cast out every last vestige of doubt that may be lurking in some corner of your minds as to the benefits that have been and will be derived from your organized efforts. Herein lies the hope of all things connected with the business, whether it has to do with grading rules, terms of sale, legislation, freight rates, market extension, or this or that. The hope for the right outcome of any or all of these lies in the majority working as a unit. The individual cannot go his way alone. Strong as he may think himself, from whatever angle viewed, the time comes when he must realize, and will realize, that to act alone avails him nothing.

"There are still some who, to-day, cling to the unsound reasoning that they are all-sufficient unto themselves, but, as a matter of fact, they are living on the fruits of the labors of those who have done the co-operative work. And such an individual, instead of being the independent that he thinks he is, is in reality a trailer and a load, which the organized majority must carry with them in their forward march of progress. How much harder the way is made for those who lead because of those who trail, the men who are carrying the load know too well. Every day problems arise that must be dealt with concertedly. There is no slightest element of fairness that you should not only do the work, but carry the financial burden for these individualists. Such seems to have been the case in the lumber industry since the first sawmill, built on the Atlantic Coast by the first settlers. But that must not discourage us. Because it has been so is no proof that it will always continue to be so. Every day it is being proven that things that cannot be done are, in fact, being accomplished. Let no man say that every mill in this Pacific Northwest will not some day be bearing its fair share of all the expenses necessary to the solving of the industry's problems. This is the ultimate goal, and to accomplish it means that we must not allow ourselves to slip back one step from the advantage now gained. You who are members of this association, and have been during all these years, and those of you who have recently joined, must have constant, abiding faith in the future.

"You must give to your association its just credit for all its activities, never forgetting that it is the parent body, from which has sprung many forms of organization which have been successes in their own field, but which without that parent body might never, and probably would never, have existed. You must allow yourselves to become enthusiastic, and must not fail to let that enthusiasm manifest itself in all the ways possible. Enthusiasm is contagious. If you honestly have it, go out of your way to show it, and before long others will acquire the same spirit, and, unconsciously, your organization will take unto itself more power and more life, and will move always forward, accomplishing great things for the industry and for you."

The Chain Letter Fraud

Chain letters have become such a nuisance to post-office officials in Canada and the United States that something effective should be done to penalize and put an end to this practice. No matter how extensively fraudulent chain letters may be exposed, they have a way of going on forever, like the babbling brook.

At present there is one of these letters circulating among the lumber trade in Canada, and we hope that any of our readers who receive it will pay no heed to its request. The letter states that a travelling salesman is "down and out" for certain unfortunate reasons, and asks that 10 cents be sent to a certain address to help him in his declining years, and that a copy of the letter be sent to five other business friends; also that the five letters sent be numbered one number higher than the number on the letter received. and that the chain be stopped when it reaches letter No. 50, as there will then be about enough money in hand to keep the poor fellow comfortable for a few years to come.

Anyone who has time and patience enough to work out the problem will have a mild surprise when he finds out what a nice nest-egg will be provided for the unfortunate "down and out" salesman if the chain continues until No. 50 is reached. One of the recipients of the letter, who had a little spare time on his hands, sharpened his pencil and commenced figuring. By the time he had covered several sheets of paper he had found out that, if the chain reached No. 10 unbroken, the unhappy salesman would have $244,140.60 on hand. He was too tired to proceed further, but one can imagine that at such a prolific rate of multiplication there would be a goodly number of millions of dollars' worth of dimes on hand if the chain reached No. 50 unbroken. The letter the Canada Lumberman saw was numbered 35.

We think the government ought to take a hand in this matter more vigorously than it appears to have done. If ever there was a fraudulent use of the mails this is a case of it. If such letter-writing is not a criminal offence it should be made one.

There are many ways in which the mails are used to start endless waves of money towards some dishonest recipient. A famous example is the Spanish prisoner who has been languishing in a cell for many years, and who offers to share an immense fortune with the party who will send a few dollars to help him escape. Although this scheme has been exposed time and again, it crops up periodically all over the world.

One of the most persistent cases is that of the 10-cent silk petticoat. A fake concern in Minneapolis advertised some months ago that it would sell every woman a silk petticoat for 10 cents, provided she would comply with certain easy conditions. The post-office was deluged with letters replying to this advertisement, each containing a dime. When the authorities went after the fakers they had fled. The fake has been exposed time and again, but the letters still pour in by thousands, and the post-office authorities are at loss how to stop them. Our suspicions in the present case are the more definite, as the letter for the "down and out" salesman calls for 10 cents also, and originates from an address in Minnesota.

We would not give this subject so much attention if we did not know that within the last fortnight the chain letter referred to above had reached five lumbermen in Toronto. We hope each of these five broke the chain.

Forest Revenues of Ontario Decreased

Falling Off Directly Attributable to the War—Pulpwood from Crown Lands Also Less than in 1915

The annual report of the Minister of Lands, Forests, and Mines of the Province of Ontario for the year ending October 31, 1916, has just been published, and is a larger and more complete report than most of its predecessors. Dealing with the woods and forests branch, the report says:

The revenue accrued from woods and forests for the year ending 31st October, 1916, was $1,405,425.06, which was $224,224.54 less than that of the preceding year.

The revenue collected amounted to $1,335,320.78, a decrease of $192,784.04, as compared with the year ending 31st October, 1915.

This decrease is directly attributable to the war. The number of men enlisting for overseas service rendered it difficult for the lumber companies to properly man their camps, and the cessation to a very great extent of building operations greatly lessened the demand for lumber.

In only one respect did the quantity taken out compare with that of the previous season, 738,597 railway ties being taken out, which was 9,433 in excess of the number for 1914-15.

The production of pine timber, sawlogs, square timber, etc., was 307,826,365 feet board measure, a decrease of 100,000,000 feet board measure from the quantity produced in 1915. Timber other than pine also shows a considerable falling off, 38,906,200 feet board measure being taken out, as against 59,308,403 feet board measure for season 1914-15.

The quantity of pulpwood taken off crown lands was 169,513 cords, or 131,443 cords less than last season, but nearly 65,000 cords more than was cut during the season of 1913-14.

There is already apparent an increased demand for nearly all classes of timber, and the output for 1917, it is confidently expected, will show a substantial increase over that for the past season.

The shortage of cars and consequent difficulty in securing coal has greatly increased the demand for cordwood for fuel purposes, and this will enable settlers to derive considerable revenue from the wood upon their lands.

The available supply of pulpwood in the United States is nearly exhausted, and this has led to constant enquiries being made with respect to pulp-bearing lands in the Province of Ontario. Enquiries have been received from several European countries, as well as from all sections of the republic to the south.

Two areas have recently been offered for sale by public competition. These areas are known as the Pic River Pulp and Timber Limit and the Black Sturgeon Pulp and Timber Limit.

The pulp companies already in operation have recently added additional units to their plant, and are prepared to purchase from settlers in order to insure sufficient pulpwood for their mill.

The $1,355,320.78 collected during the year ending October 31, 1916, was made up as follows:

Timber dues	$822,332.81
Bonus	337,972.94
Ground rent	89,520.03
Transfer fees	3,640.00
Deposit on timber sales	81,855.00
	$1,355,320.78

The area under license last year was 15,712¼ square miles, which is one-half square mile more than the area under license the previous year.

Ontario Pulpwood Industry

The wood used in the manufacture of pulp has shown substantial increases in the provinces. The 1913 production was worth $4,107,689, increasing in 1914 to a value of $4,148,405, and keeping ahead of the four-million mark in 1915 with a production worth, approximately, $4,500,000. The production of wood used in the manufacture of pulp in three years in the Province of Ontario was to the value of, approximately, $12,500,000. While five of our provinces contributed to the output of pulpwood in 1915, over 50 per cent. of the total Canadian production was in Ontario.

The newspaper industry is occupying the centre of the stage, and is, consequently, responsible for the great activity in the pulp mills of the province. While no complete statistics have been gathered to trace with real certainty the cause of high prices, the unprecedented demand for paper continues to raise prices to the small consumers,

WOODS AND FORESTS.

Statement of Timber and Amounts accrued from Timber Dues, Ground Rent and Bonus during the year ending 31st October, 1916.

QUANTITY AND DESCRIPTION OF TIMBER.

Agencies.	Area covered by timber license.	Saw logs.				Boom and Dimension.				Square Timber.		Pine.	Square Timber.		Cedar.	Piling.	Piling.	
		Pine.		Other.		Pine.		Other.		Pine.			Birch.					
	Square miles.	Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces	Cubic feet.	Lineal feet.	Pieces	Cubic feet.	Lineal feet.	Lineal feet.	Pieces	Feet B.M
Western Timber District	11,377	6,698,293	260,853,223	801,573	27,683,608	92,863	9,486,659	9,367	1,303,597	1,816	96,851	298,611	142	4,271	1,250	72,282	1,500	135,864
Belleville Timber District	507	144,087	2,556,900	117,067	3,678,027	1,082	133,450	1,473	221,296	.....	.....	.....	.....	.....	.....	11,860	.....	.....
Ottawa Timber District	3,828¼	635,325	32,934,817	249,456	5,329,052	6,051	699,104	3,601	472,386	.....	.....	.....	.....	.....	.....	.....	302	31,118
	15,712¼	7,477,705	296,344,940	1,168,096	36,690,687	99,996	10,319,213	14,441	1,997,279	1,816	96,851	298,611	142	4,271	1,250	84,142	1,802	166,982

General Statement of Timber.—Concluded.

Agencies.	Cordwood.		Tan Bark.	Railway Ties.	Posts.	Poles.	Stave Bolts.	Pulpwood.	Amounts accrued.							
	Hard.	Soft.							Transfer bonus.	Interest.	Trespass.	Timber dues.	Bonus.	Deposits timber sales	Ground rent.	Total.
	Cords.	Cords.	Cords.	Pieces.	Cords.	Pieces.	Cords.	Cords.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Western Timber District	6,721	30,623½	4,594	734,798	3,465	1,608	835	146,895	3,585 00	11,099 13	15,919 65	678,119 44	448,759 78	81,855 00	63,880 00	1,303,218 00
Belleville Timber District	2,465	.....	526½	506	3	.....	45	2,293	.....	446 69	2,697 61	8,263 39	749 92	.....	3,500 00	15,657 61
Ottawa Timber District	20	764	1,576	3,293	75	753	.....	20,325	55 00	2,924 04	953 64	60,779 28	.....	.....	21,837 49	86,549 45
	9,206	31,387½	6,696½	738,597	3,543	2,361	880	169,513	3,640 00	14,469 86	19,570 90	747,162 11	449,509 70	81,855 00	89,217 49	1,405,425 06

Ontario's Crown Lands Production and Revenue during 12 months ending 31st October, 1916.

which seems to indicate the existence of an actual shortage. The mills are unable to promise dates of delivery, and are not taking orders for months ahead.

The production of pulp in the Province of Ontario during 1915 is estimated at 500,000 tons. In preceding years it was as follows: 1914, 477,751 tons; in 1913, 321,244 tons; and in 1912, 173,903 tons. The value of the wood used in the manufacture of pulp and paper in Ontario during the same years was as follows: 1915, estimated, $4,200,000; 1914, $3,172,235; 1913, $2,297,389; 1912, $1,235,343.

The report upon fire ranging states that 1,804 fires were reported during the season, but only in the cases of 125 were they attended by any damage to timber. Nearly 50 per cent. of the fires were said to be caused by railway engines, but very few of these fires occasioned any damage. The railways were co-operating whole-heartedly with the department in the protection of the forests. The cost of railway fire patrol during 1916 was $60,274. The cost of fire ranging on crown land other than railways and reserves was $50,842. The number of rangers on licensed lands was 290 The approximate cost of fire ranging was $75,000, this being borne by the licensees.

Divided into districts, the collections of the Woods and Forest Branch were as follows: Western district, $1,323,406; Ottawa district, $81,070; Belleville district, $21,845.

The table on page 24 shows the quantity of the various kinds of timber, etc., produced in Ontario during the year and the amounts accrued from timber dues, ground rents, and bonus:

Great Britain May Regulate Neutral Vessel Charters

According to a despatch published by the Lumber Trade Journal of New Orleans, La., "Late reports in circulation in shipping and export circles are to the effect that the British Government has undertaken radical measures to regulate the high price of charters for steamers, with special reference to neutral vessels carrying cargo to British ports. Diligent inquiry among those in best position fails to develop any authentic details, or in fact any positive confirmation of the report, which, however, is given full credence, as it is directly in line with the recent policy of the government in regulating rates for its own vessels.

"As near as can be gathered from the fragmentary reports, the substance of the regulations is to fix a maximum charter rate of 185 shillings per ton on net form charter from the Gulf to Great Britain, and 155 shillings from New York. Whether or how pixpinus charters are affected is not known, but it is to be assumed that they are, and presumabily they would be fixed on the same relative basis, or at the rate of 500 shillings per standard pixpinus to 200 shillings per ton net form. The means of making the regulation effective is said to be in the British Government's control of the coal supply, both at its home ports and in its colonies and island possessions, the observance of this rate being made a requisite to the procuring of coal at any British port. In fact, it is stated that at least one vessel has been obliged to surrender a charter it had entered into because the rate was higher than the prescribed maximum and it was therefore unable to obtain coal until the charter was canceled.

"The order is supposed to be directed more particularly against Norwegian vessels, which have since the war began largely dominated the charter market, and have constantly raised their rates as the scarcity of vessels increased. It is also rumored that, as an offset to this regulation, the British Government has agreed to extend the benefit of its war risk rate of two per cent. to all neutral vessels carrying cargo to Great Britain observing the prescribed rates. This, however, while regarded as probable, is in more doubt. At present the local situation is uncertain in the absence of information more definite and authentic than has leaked in from the outside, delays in the mails from the other side being such that no direct advice has been received."

British Columbia Output Breaks Previous Record

The forest production of British Columbia, as a result of an increased cut and higher prices realized, reached a new record in 1916, the value of all products in the forest for that period being $35,528,000, slightly under two million dollars more than in the last record year, 1913, and over 20 per cent. more than in 1915. The figures submitted by Chief Forester Grainger to the Minister of Lands, Hon. T. D. Pattullo, show a great increase in the output of shingles, the value of which for the year amounted to $4,500,000. There was also a considerable increase in the production of mining props and posts, and the demand for boxes for munitions led to the value for that item, which first appeared last year, rising to nearly two million dollars. In the cut of lumber, while it is less than in 1913, there is an increase of about 35 per cent. over 1915. There is a slightly higher production of pulp than there was the year before, but for the past four years this figure does not show much change.

Ontario's New Forest Fire Measure

Provisions of Act Now Before Legislature to Facilitate More Effective Protection of Standing Timber

The Hon. G. Howard Ferguson, Minister of Lands, Forests, and Mines for the Province of Ontario, has introduced a bill entitled "An Act to Preserve the Forest from Destruction by Fire." The bill is designed to enable the Minister to put into effect the important reforms in regard to forest fire prevention which he announced a few months ago. Among the important clauses of the bill are included the following:

Clause 3, giving the Lieutenant-Governor-in-Council power to proclaim any part of Ontario "a fire district," or to proclaim that such a district is "no longer a fire district."

Clause 4, providing for the appointment of a provincial forester.

Clause 6, providing for the appointment of a staff for enforcing the act.

Clause 7, creating a close season in respect to the setting out of fire, from April 15 to September 30 in each year, during which no person shall set out fire in a fire district, except as prescribed by the regulations.

Clause 8, providing a penalty not exceeding $100 for anyone who sets out fire for clearing land, removing waste or debris, or who uses fire for industrial purposes in a fire district during the close season, except in accordance with the regulations.

Clause 9, permitting the Lieutenant-Governor-in-Council, upon recommendation of the Minister, to make regulations for extending the close season when necessary; for granting permits for the use of fire in a fire district, for clearing land, disposal of debris and other inflammable waste, and for industrial purposes, and to regulate the precautions taken under such permit; for making fire guards and taking other precautionary methods when danger from fire is imminent to any town or settlement; for regulating or preventing the piling or accumulation of brushwood, debris, or inflammable material; for empowering the provincial forester, or other officer of the department, to enter upon lands for removing, destroying, and disposing of any such inflammable material at the cost of the individual or corporation, which cost is to be recoverable by action; for regulating the use of safety appliances on locomotive engines, logging engines, portable engines, traction engines, or stationary engines, using fuel other than oil, and for compelling the use of such appliances and prescribing the precautions to be taken in their use and operation; and prescribing penalties for violation of these regulations.

Clause 10, giving the provincial forester power to order the owner or person in control of land to remove conditions causing danger from fire, and in default to enter upon such land and have the work done at the cost of the owner, and providing a penalty of $50 for anyone who refuses to carry out any order or direction given by the provincial forester under this clause.

Clause 11, making it unlawful, during the close season, in a fire district, to use or operate within a quarter of a mile of any forest slashing or bush land, any locomotive, logging engine, portable engine, traction engine, or stationary engine using fuel other than oil, which is not provided with a practical and efficient device for arresting sparks, together with an adequate device for preventing the escape of fire or live coals from all ash-pans and fire-boxes, and which does not comply in every respect with any regulations for the time being in force under this act; also making it unlawful to destroy wood or waste material by fire in a burner or destructor at or near a mill or manufactory, or to operate a power-producing plant using any smoke-stack, chimney, or other spark-emitting outlet, without installing upon it a safe and suitable device for arresting sparks complying with the regulations; and making it unlawful to deposit fire or live coals of any such engine within a quarter of a mile of any forest, woodland, or hay-land upon any railway right of way outside of the yard limits, without immediately extinguishing the same, and providing a penalty of $100 for offending against this section, also enabling the provincial forester to secure an injunction against the use of any such locomotive or burner.

Clause 14, enabling the Lieutenant-Governor-in-Council to appoint any crown timber agent or wood or fire ranger a justice of the peace for a limited period for taking cognizance of offences against this act, and giving such justice of the peace power for a limited period to appoint constables for the purpose of the act.

Clause 15, providing a penalty not exceeding $50 for any person who throws or drops a burning match, ashes of a pipe, lighted cigar, or other burning substance in a fire district without extinguishing the same.

Canadas' exports of forest products during the twelve months ending January were valued as follows: 1917, $55,676,911; 1916, $51,211,820; 1915, $41,523,344.

Toronto Technical School—Carpenter shop.

Toronto Technical School—Machine end of pattern making room

Toronto Lumbermen Visit Technical School

The Lumbermen's Section of the Toronto Board of Trade paid a visit on Friday, March 2nd, to the Toronto Technical School, where they were shown through the school by the principal, Dr. A. C. McKay. Before conducting the lumbermen through the school, Dr. McKay explained its purpose, which is to furnish boys and girls an opportunity to obtain a practical industrial education along with a good education in mathematics, English, reading, history, geography, etc.; the industrial side of the education being provided by practical experience in the use of the various industrial processes. The lumbermen were conducted through the building from top to bottom and shown all the equipment, and, in many cases, large classes of boys and girls actively at work becoming intimately acquainted with the details of the various industrial processes. Of chief interest to the lumbermen were those classes engaged in the conversion of lumber and timber into various finished products. They were shown through the following classes and rooms of this kind:—

Two elementary woodworking shops, each equipped with six lathes, a trimmer, a mortiser, a jointer, a power saw, a tool grinder, and twenty-four benches and the usual small tools.

Two pattern-making shops, one equipped with 11 lathes, a trimmer, a jointer, a band saw, a variety saw, a mortiser and a tool grinder, twenty benches and sets of small tools; the other containing one twenty-inch motor head block pattern-making lathe with power feed, six twelve-inch motor head block lathes, one band saw, one universal saw table, a jointer, a disc and spindle sander, a trimmer, and twenty benches and sets of small tools.

A carpentry shop, the equipment of which includes a variety saw with mortising attachment, a jointer, twenty benches and sets of tools.

A cabinet shop equipped with a jointer, a mortiser, a tenoner, a variety saw, a trimmer and twenty benches and small tools for twenty students.

A mill room furnished with a 30-in. cabinet surfacer, a sixteen-inch jointer, a rolling table cut-off saw, a self-feed rip saw, a band saw, a belt sander, a shaper, and a drying room 11 ft. x 18 ft. v 14 ft.

A construction room 80 ft. long, 37 ft. wide and 30 ft. high, affording ample space for the erection of two moderate sized dwelling houses at one time.

Architecture and building construction rooms; one of which is specially equipped for the teaching of theoretical building construction and estimating, furnished with individual drafting tables, each containing lockers for six students, and provided with stools and large detail drawing boards, and in an adjoining store room are kept samples of building materials and construction details used in illustrating the practice of the building trades. Another room is assigned to the teaching of elementary architecture. This is furnished with forty-five individual drafting tables with lockers and stools, and has access to the store room of construction details,

A third room is assigned to the teaching of advanced architectural design, and is furnished, partly with individual drafting tables and partly with large detail drawing tables on trestles.

The lumbermen were greatly impressed by the completeness and thoroughness of the provision made in the school for instructing young men and girls in industrial processes. An interesting feature of the education given is that for developing the students physically. A large, well-equipped gymnasium is provided, and a good-sized swimming tank, together with a large number of showers.

Toronto Technical School—View in mill room.

Toronto Technical School—Elementary woodworking shops

5000 Canadian Foresters Wanted

An Ottawa despatch dated March 8th says:—A call has been issued for 5,000 more Canadians for forestry work in the United Kingdom, as a result of the prohibition of timber imports. The men will go over in drafts. Lumbering experience is necessary, but military medical regulations are somewhat relaxed.

Another Ontario Forestry Draft

Another forestry draft is being raised in the Toronto Military District. The strength of the new unit will be one major, one captain, four lieutenants, and 250 of other ranks. Lieut. Charles McK. Gordon, of the 5th Battalion, has been granted the rank of major, and will be the officer in command. The headquarters of the unit are at Haileybury, Ont. It is the intention to make a strong effort to obtain men during the next few weeks, and it is expected that the end of the logging season will give the recruiting a stimulus. This makes four forestry units in the field in Military District No. 2. One of these is at North Bay, under Capt. J. C. Gillespie, and is practically filled up. One is at Toronto, under Capt. William Gardner, and one is the Indian draft, which will draw men from all over the province, under Lieut. F. O. Loft. In addition to this, the 122nd Battalion, stationed at Galt, Ont., was recently converted into a forestry battalion. No. 2 forestry draft, with its headquarters at Toronto, has opened recruiting depots at London, Windsor, Hamilton, Toronto, and Sudbury.

B. C. Shingle Trade During 1916

Difficulties of an Abnormal Year Outlined by H. J. Mackin —Profits Reduced by Many Factors.

At the annual meeting of the British Columbia Shingle Agency, held recently at its office in Vancouver, the president, Mr. H. J. Mackin, in his annual address, included a review of conditions during the past year. "At the beginning of the year," Mr. Mackin said, "mills generally were well supplied with orders, taken at prices which were, if not unprofitable, at least not highly profitable. Heavy snows, together with continued cold weather, during the early months of the year brought about a heavy curtailment in production. This curtailment, in accordance with the laws of supply and demand, brought about by the first of March a general increase in shingle prices, amounting to about 25 cents a thousand.

"Following closely on the heels of a long, hard winter came a car shortage, which threatened again to curtail production. Prices climbed 10 cents higher.

"Then came the shortage in logs and bolts, when mills were obliged to shut down for want of raw material. This shortage was caused mainly by scarcity of labor, but it was greatly aggravated by the dry weather during the summer months, which made it impossible in many cases to float either logs or bolts. This shortage was responsible for a further increase of 10 cents in shingle prices, making a total increase of 45 cents, which was maintained through the balance of the year.

"During the usually slack fall period there was no apparent falling off in business. The greatest car shortage, with its attendant embargoes, we have ever experienced, settled down on the situation, and is with us yet. The car shortage was caused, as you are aware, by the inability of the railroads to cope with the unprecedented amount of business entrusted to them, and the shortage of bottoms for transporting the again unprecedented amount of export business.

"Finally, about a month ago traffic became so congested that every possible spur and siding from the Atlantic Coast to the Minnesota Transfer was filled full of freight consigned to Eastern territory. Then followed the great embargo to points east of Chicago, which has but a short time ago been modified to make shingle shipments in any amount possible. All this, of course, helped to steady what ordinarily would have been a falling market, for the firm prices which have prevailed have not been due to an increased demand. In fact, during 1916, according to the American consul, our export of shingles to the United States decreased about 20,000,000 as compared with the previous year.

"Costs of producing shingles have increased to such an extent as to give cause for much consdieration as to the possibilities of the business being profitable in the future."

A table presented by Mr. Mackin gave the following information:

Logs and bolts show increased cost of 40 per cent. in 1916, or 36c per M. shingles.

Labor shows increased cost of 20 per cent. in 1916, or .09c per M. shingles

Mill supplies show increased cost of 66 per cent., or .06c per M. shingles.

Total increased cost of production in 1916, 51 cents.

British Columbia shingles show an increased price of 24 per cent. in 1916, or 45 cents per M. shingles.

Margin of profit lost in 1916 compared with 1915, .06c per M. shingles.

Six cents per M. on a total production of about 1,900,000,000 shingles in 1916 makes a loss to the British Columbia shingle industry of $114,000.

Continuing, Mr. Mackin said:

"This year will come the big salmon run. All available Japs will go fishing, and, as a consequence, bolts may be scarcer than ever. Loggers are about as scarce now as they very well can be, and still everything is being done to enlist what few are left in forestry battalions. Wages for logging and bolt cutting, together with the food and implements necessary to run a camp, have increased about 50 to 60 per cent. The result is obvious. Logs and bolts are both bound to be more scarce than they are, and, consequently, will increase in price. In fact, everything connected with the making of shingles will probably increase in price, thereby raising our manufacturing costs.

"The demand for shingles this year promises well at this time, and if those interested in their manufacture will pull together the prospects for a fairly satisfactory year are good. Co-operation is needed in the matter of prices, in the furnishing of general information and of statistics to be used for the general good of the industry. In short, there should exist such a spirit of co-operative action as will enhance the quality and exploitation of our markets and make possible the carrying of the many burdens with which industry is saddled."

Swedish Timber Exports at a Standstill

In a discussion of the British Government's orders taking control of timber in merchants' hands, and prohibiting imports except under special permit, the Timber Trades Journal, London, England, says: "Of all neutral countries none appears likely to suffer so heasily as Sweden by Germany's new form of submarine warfare. In several other countries sailings have been temporarily stopped or diverted on account of the difficulty of insurance, but the Swedish Government has felt itself compelled to take more drastic measures to avoid accidents, and has forbidden Swedish boats to leave Swedish ports without special permission. The wood cargoes which were being loaded at the Lower Gulf ports have, we hear, been at once discharged, and it is clearly recognized that, as matters stand at present, no further shipments of Baltic wood to this country will be possible. The refusal of the Swedish War Insurance Commission to insure any outgoing vessel makes the position a far worse one for the country than it has been at any time since the war commenced; for when, on a former occasion, Germany declared sawn goods contraband, arrangements were immediately made, with the help of the Swedish Government, to increase the shipments over Norway and from Western ports; railway rates were reduced, and all possible facilities given; boats were insured, and quite a large shipment would have taken place had not an agreement been come to in the meantime between Sweden and Germany rendering the transport of wood to the west coast an unnecessary expense. Now, however, Sweden refuses to run the risk of insurance, even from the west coast, and consequently the timber and all other export trades are at a standstill. The only risk which the Swedish Government has so far intimated its willingness to take is to cover boats lying at English ports on the voyage back to Sweden at from 10 to 12 per cent. The trade position, however, is regarded in Sweden as a very serious one for the country, and the matter of insurance has been brought up at the Riksdag for discussion. All calculations regarding supplies of wood have been utterly upset by the latest developments. The great hopes of Swedish exporters for a better year even than last have been rudely shattered, and as far as the belligerent countries are concerned Sweden is regarded as out of the market pending some drastic alteration in the situation. On the other side, however, hopes are not altogether abandoned. It is stated that Germany is still endeavoring to enter into 'conversations' with America as to the possibility of some modification in her blockade methods. If these methods do not succeed during the next month or two it is, therefore, quite on the cards that Germany may—of course, for valuable consideration—again allow Baltic wood to be shipped to this country and to France. Nothing is impossible in these extraordinary times, and timber importers will need to keep their eyes open and be prepared at any moment for a change."

Jacksonboro, Ont., Shows Its Patriotism

The flourishing little town of Jacksonboro, Northern Ontario, situated in close proximity to the devastated region of Northern Ontario, the residents in which only number eighty (men, women and children) held a "Box Social" and Dance in their public hall recently, the proceeds of the Box Social being in aid of the Canadian Patriotic Fund. Nearly all the residents of the town are employed in the lumber or pulp business, by the New Ontario Colonization Company, and by Grosart, Limited (contractors for lumbering operations of the Mattagami Pulp & Paper Company, Limited) and were nearly all, with a few friends from adjoining towns, present at the Social, which realized the splendid sum of six hundred and thirty dollars for the Fund, or $7.88 per capita.

Shantymen's Christian Association

Work Carried on Throughout Northern Ontario and in Saskatchewan—Good Results Secured

Mr. William Henderson, superintendent of the Shantymen's Christian Association, recently visited Toronto after having spent the winter in directing the work of the association's representatives during the past winter. Speaking of this work, he gave the following facts:

There are 350,000 men ordinarily in the lumber and mining camps, far removed from spiritual influences; 13,409 men were ministered to last year; 355 camps were visited and meetings held; 2,800 miles were covered by workers (railway travel not included); ten workers were enrolled during 1915-16. Many hundreds of miles along the C.N.R. and the Transcontinental Railway are never visited by a church minister. The association's workers received warm welcomes in such districts; 4,600 French-Canadians heard the gospel last year and received Bible portions in French; 2,500 Slavs and foreigners heard the gospel in their own tongue. Invitations to return to camps visited can rarely be accepted because of the large field to cover and the small number of workers.

The association is rapidly obtaining the confidence of the camp foremen throughout the North country. Last winter they extended their work to the Port Arthur district and to Saskatchewan, and found a hearty welcome everywhere. The chief reasons for their welcome are three: In the first place, they never take up any collections in camps, their work being supported by voluntary contributions from other sources; in the second place, they never try to unsettle anyone's special church connections, merely trying to make better men of them; in the third place, the workers are laymen, not professional preachers, and this gives the lumbermen more confidence in them and brings them into more personal touch.

Mr. Henderson reports that there is a great difference to be noted in the lumbermen of to-day as compared with those of ten years ago. In his visits to the camps he does not now hear anything like the amount of profanity that he heard in the earlier days. He does not see so much gambling. The drinking habits had been entirely changed, even before prohibbition came into effect. In fact, wherever prohibition petitions were circulated in the lumber camps the majority of the men signed them.

Speaking of the financial end of his work, Mr. Henderson expressed the opinion that the owners of the lumber camps ought to help the association more than they do. A few of them are regular contributors, but the majority of them are not. It might be that this was from lack of solicitation. All the office work of the association is done gratuitously and is conducted in a very economical manner.

During the present winter the association has had about nine men at work in Ontario, covering all of the North Country. They report that the extent of the lumbering operations has not been so great as in previous winters, but that a tremendous amount of pulpwood has been taken out. The winter has been the coldest experienced for many years.

Any lumbermen who are interested in this work and wish to assist it may do so by communicating with the secretary-treasurer, Mr. R. D. Richardson, 103 St. Clair Avenue West, Toronto.

Bad Weather Curtailing B. C. Coast Output

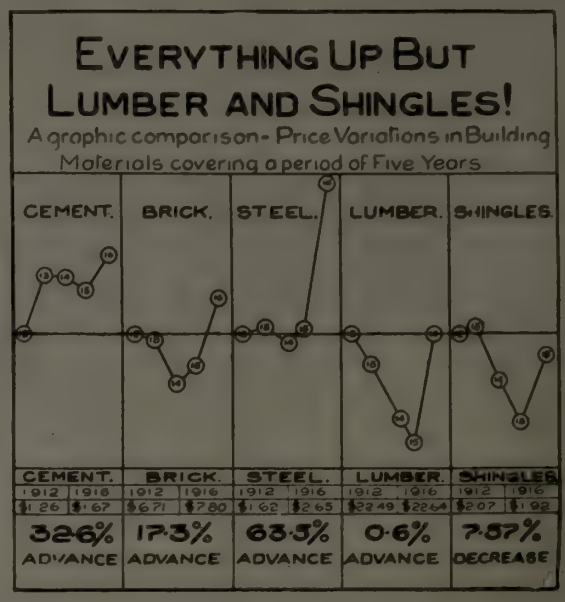
A despatch from Vancouver, B.C., states that for the past two months the logging industry on the coast has been tied up by weather conditions, especially by the heavy snow. The camps worked later into the fall than usual, and some would have carried operations right through the winter had the weather permitted. With the prospect of one of the best seasons in the history of the province, they have so far this year been kept practically at a standstill, and are faced with unusual difficulties in regard to experienced labor, now that the authorities are again recruiting experienced woodsmen for the work of cutting down the woods and forests of England and France.

Demand for logs is strong, but this is partly to be attributed to weather conditions, very few having been able to get their logs on the market, though the cut in the water was not great either. A good demand all year is looked for. Fir prices are considered good, and they are not expected to go below their present level this year. While the price is good compared with prices in the past, one has to take into consideration the advanced cost of labor and all kinds of supplies and equipment.

While labor is perhaps not scarce for present demands, as soon as a majority of the camps are opened the condition is likely to be acute. There were scarcely enough competent workmen to go around last year, and this year the prospects are not encouraging. If the new Forestry Battalion take all the experienced men they are after there will be few competent loggers left, and logging operations may have to be curtailed.

Lumber and Shingles Lagging Behind

Mr. W. J. VanDusen, of the British Columbia Forest Branch, addressed the Shingle Agency of British Columbia at its annual meeting recently, explaining the work of the branch in promoting the interests of the shingle industry. In the course of his address he presented


EVERYTHING UP BUT LUMBER AND SHINGLES!
A graphic comparison - Price Variations in Building Materials covering a period of Five Years
CEMENT.
BRICK.
STEEL.
LUMBER.
SHINGLES.
CEMENT. 1912 1916 $1 26 $1 67 326% ADVANCE
BRICK. 1912 1916 $671 $780 17·3% ADVANCE
STEEL. 1912 1916 $1 62 $2 65 63·5% ADVANCE
LUMBER. 1912 1916 $22 49 $22 64 0·6% ADVANCE
SHINGLES. 1912 1916 $2 07 $1 92 7·87% DECREASE

an interesting chart, showing the relative advances which had been made in the prices of cement, brick, and steel, as compared with lumber and shingles during the past five years. We reproduce the chart herewith.

A Big Canadian Shipbuilding Programme

According to a cable despatch from London, Eng., an extensive programme of shipbuilding for the British Government in Canada is in contemplation. If the plans which are now in view are carried out successfully the existing shipyards in Canada may all be utilized for the construction of steel steamers of large carrying capacity, while new industries along the same line will be established on a large scale.

Wooden Vessels Would Escape Submarines

A heavy consumption of lumber and timber would result in Canada and the United States if a plan proposed by an eminent United States authority is put into effect. Mr. F. Huntington Clarke claims that a certain class of cargo tonnage can be created faster than Germany can sink it. Mr. Clarke's plan contemplates the construction of a great number of wooden vessels of 1,000 tons, to be motor propelled, with a speed of from nine to fourteen knots. These vessels, he asserts, can be built at small cost and by men of little skill. Each vessel would be mastless, smokeless and of diminutive size, and would have such low visibility, as compared with the great steel steamers now afloat, that it could be seen by a submarine at only one-third the distance. In addition, the vessels would offer a smaller mark, would be more easily manoeuvred in event of attack, and because of their small draft of from eleven to thirteen feet torpedoes that ordinarily would sink the larger vessels of steel construction would pass idly beneath them.

Great Britain's Restriction of Lumber Imports.

The Department of Trade and Commerce, Ottawa, have received from the Colonial Office a list of imports into the United Kingdom which are prohibited, except under license, as referred to by Prime Minister Lloyd George in his recent announcement. The cabled list received at Ottawa includes the following: "Wood and timber of all kinds, hewn, sawn, or split, planed, or dressed."

Licenses to import prohibited articles into the United Kingdom must be secured from the Controller of Import Restrictions, 22 Carlisle Place, Westminster, London, S.W. Such import restrictions, however, are issued with a view to controlling the imports rather than prohibiting them. The British import restrictions apply to British dominions as well as to foreign countries. It has been the practice, however, of the Department of Trade and Commerce at Ottawa to assist Canadian exporters, through the Canadian High Commissioner's Office in London, whenever possible in connection with difficulties arising out of the British import restrictions. The Department of Trade and Commerce has no power to grant licenses to import goods into the United Kingdom. It can only assist, and will do so when the case justifies it, by presenting the facts to the High Commissioner, so that he may endeavor to prevail on the Controller of Import Restrictions to issue a permit for the import of the goods desired. Parties desiring further information in connection with this situation should apply to the Deputy Minister, Department of Trade and Commerce, Ottawa.

Scotch and Canadian Forestry Methods

Opinions of a Corporal in a Canadian Corps

The Canada Lumberman is in receipt of an interesting letter from Corporal H. H. McNairnay, who has been stationed with the Canadian Forestry Corps, recently operating in Scotland.

"After spending twenty-five years in Northern Ontario," Corp. McNairnay says, "and seeing the destruction of so much valuable timber by fire, then coming to this country to manufacture timber which was planted sixty or seventy years ago, one wonders if our governments had the faintest idea of the value of the woods that have been destroyed by fire in our provinces without any earnest effort having been made to save them."

Corp. McNairnay then devotes a portion of his letter to a criticism of governments in Ontario for their settlement policies and timber-cutting regulations. In view of the progressive reforms which the Ontario Government has recently announced that it intends to make in connection with this work we do not feel that it would be fair to reproduce Corp. McNairnay's views upon this point. They were, however, very vigorous. Continuing, he says:

"To protect the timber there must be trails, lookout stations, and telephones—in short, an efficient method of locating fires as soon as they start, and gathering men to extinguish them. The destruction of timber by fire has a far-reaching effect, especially in parts of the country where there are large waterfalls on the streams, a great many of which have been developed by mining companies. For instance, the Spanish and Vermilion Rivers are both much smaller streams than they were twenty years ago, not so much by reason of the timber along these rivers having been removed as because the watersheds have been destroyd by fires. There are good waterfalls, some of which the mining companies have developed, and which are of great value to the country, but, as the water-shed goes, the water-powers will also go.

"There are thousands of acres where the timber has been cut off that could be replanted. Such replanting would save the water-powers and prevent fires, and the timber would be increasing in value every year.

"It takes timber here, in Scotland, sixty to seventy years to grow to marketable size. The timber we are cutting was planted sixty years ago, and it cuts out 15,000 feet to the acre. If we wait until our timber is all gone before planting, Ontario will have to import timber, and that before long, if vigorous steps are not taken to protect what remains. It is a question whether timber would grow as fast in Northern Ontario as it does here.

"The timber most in favor here is Scotch pine and larch. The Scotch pine resembles somewhat our jackpine, but grows larger. The larch is the same as Ontario tamarac. Larch is the more valuable, but is not often set out in solid stands here, for fear of the saw-fly destroying it.

"I would like to see our Ontario Government send over a good man during the present lumbering operations here, to study the result of reforesting. I am sure he would gather information that would be of great value to our province in the near future, for we will have to take up reforesting sooner than most people are aware of. It hardly seems fair that we should strip, or allow to be destroyed, the timber growing in our splendid country, and leave it barren for future generations.

"I note with pleasure that the Department of Forests and Mines for Ontario have appointed a man, who is said to be very capable, to organize a protective system for preventing fires in our standing timber, and I wish him every success in his difficult undertaking, for I know he will have to build from the ground up.

"We move on to France in a few days, and no doubt will find the French timber-growing system interesting."

Southern St. Lawrence Association Formed

Montreal, March 7th; (Special to the Canada Lumberman):—The Southern St. Lawrence Forest Protective Association, Limited, was organized at a meeting held in Quebec on March 5th. The association will be composed of lessees and owners of limits on the south shore of the St. Lawrence and will be on the lines of the St. Maurice & Lower Ottawa Associations. Messrs. Ellwood Wilson, S. L. DeCarteret, and H. Sorgius, of the St. Maurice Association were present, and gave advice as to the formation and conduct of the new organization. A committee was appointed to interview the Hon. Jules Allard, Minister of Crown Lands and Forests, and was cordially received by him. The Minister expressed his hearty co-operation in the movement, and promised on behalf of his department every assistance that could be rendered by the government for the furtherance of what he considered a vital necessity in the preservation of forest resources. Mr. W. Gerard Power was elected president, and Mr. P. G. Owen secretary-treasurer. The association is divided into two divisions. The directors for the western division, comprising the Gaspe Peninsula, are Messrs. Simmons Brown, E. A. Rockett, and Jos. Tobin; for the eastern division, Messrs. A. McLean, David Champoux, Major Lyons, Charles McLay, and R. L. Montgomery.

Settling Soldiers in New Ontario

In a memorandum to Sir Robert Borden with reference to facilities for settling returned soldiers on the land in New Ontario, Hon. G. Howard Ferguson explains Ontario's proposals. Farms containing not more than eighty acres will be laid out in such a manner as to bring the different farm houses as close together as possible. As soon as a soldier desires to go upon a farm and work for himself an eighy acre lot with a ten acre clearing will be allotted to him. The eighty acres with ten acres of clearing will be given the settler free of charge. For each day's work that is done from the time he enters the training school at Monteith until he goes upon his clearing he will be paid a reasonable wage. An advance up to $500 will be made to cover the cost of stock, implements and equipment and any assistance in building that may be needed for which a lien will be taken against the settler's holding and chattels. The lien would be payable in 20 years at six per cent., but no payment on account of either principal or interest shall be required until after the expiration of three years. At the expiration of five years from the settler locating upon his land, and upon the due performance of certain conditions in the meantime, he will be entitled to receive a patent from the Crown.

Railroad Ties Needed in Europe

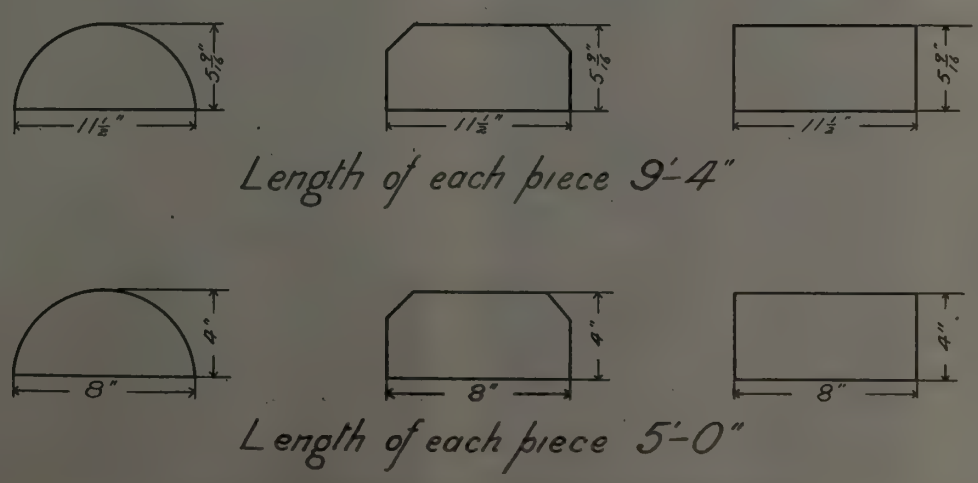
The weekly bulletin of the Department of Trade and Commerce reports that one million or more white oak railroad cross ties are required for building and rebuilding railroads in Europe, as shown in the following plans:

They must be delivered at shipping points.

A commissioner representing the purchasers is now in New York.

Supplies of oak flooring, building material, and heavy planks in large quantities are also asked for.

For further particulars write Commercial Intelligence Branch, Department of Trade and Commerce, File No. 15782, or to the Canada Lumberman and Woodworker.



Dimensions of Railroad Ties which are needed in Europe.

Canada Metal Company's Fifth Annual

Representatives and Managers from All Parts of Canada Meet at Head Office, Toronto —1916 Business Made a New Record.

W. G. Harris, Senior

The fifth annual convention of the Canada Metal Company, Ltd., was held at the head office, Toronto, during the week of February 12, and was the occasion of the coming together of representatives and managers of the company from all parts of Canada. The convention was one of the most successful that the company have ever carried out.

Mr. W. G. Harris, Jr., who presided, delivered an address of welcome, expressing the pleasure of the company at meeting its executive staff annually under such pleasant conditions. Not only did this enable them to become better acquainted with one another, but afforded an opportunity for exchanging ideas and experiences, and thus obtaining a more extensive acquaintance with the lines manufactured by the company.

During 1916, Mr. Harris said, the Canada Metal Company had made greater progress than in any year, and twice during the year they had enlarged the Toronto factory, which now included five acres of floor space, and every inch was fully utilized. Moreover, in the near future, further extensions would be necessary. They had experienced many difficulties during 1916, but they felt unusual pride in being able to congratulate the salesmen upon the excellent results obtained during the year. The increased business handled during 1916 was a matter for congratulation, in view of the extraordinary conditions that prevailed in the markets for their products and in connection with the rapidly advancing costs of raw material and the scarcity of labor.

Throughout the year their factories had been taxed to capacity, but their continued increase in manufacturing equipment would enable the company to handle a larger volume of business in 1917 than in 1916.

Discussing the report of sales for the year, Mr. Harris said that one of the most interesting features was the awarding of prizes to salesmen who headed the lists in the various sales competitions. In 1911 a modest competition for $10 per month had been suggested and inaugurated by Mr. H. C. Crow, and under his supervision and guidance the competitions had grown until, in 1916, the value of the prizes reached $1,000. These competitions made it necessary to keep most valuable records, and at the end of each year reports were compiled showing, in value, what each salesman had sold, in babbit metals, type metals, ingot metals, solders, plumbing supplies, etc.

For general sales Mr. H. E. Cameron had secured the first prize of $100, and Mr. D. L. Scott had obtained the second prize of $50.

In the Harris heavy pressure competition the first prize was a gold watch and chain, valued at $100. The honor of making this presentation fell upon Mr. H. C. Crow, and, in doing so, he pointed out that the 1916 competition had been the most successful the company had ever held. In 1915 they had been so far ahead of any previous record in sales for Harris heavy pressure that when they found in 1916 that they had more than doubled their sales they accepted it as an unquestionable indication, not only of the interest taken by their salesmen in the competition, but of the appreciation of the consumer for this well-known babbit metal. In presenting the gold watch and chain to Mr. Cameron, he congratulated him upon his success and paid a tribute to the manner in which he had stuck at it every minute of the time during the past year.

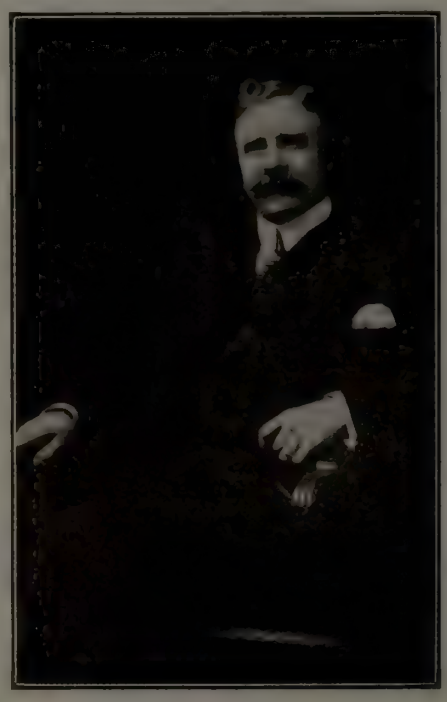
W. G. Harris, Junior

Mr. E. Parkin, of Hamilton, who came second in the Harris heavy pressure competition, delivered an excellent address on the subject of "Enthusiasm." His remarks were well received, fully appreciated, and loudly applauded by all.

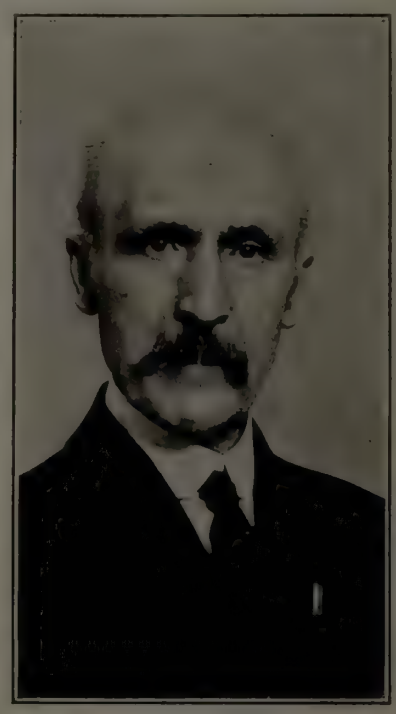
Under the supervision of Mr. W. G. Harris, Jr., an exhaustive discussion then took place in regard to babbitt metals. Many metallurgical tests were then made and illustrations given of the manner in which raw material is first taken to the laboratory and thence to the large melting pots which have a capacity of 35 tons.

Chemical tests were next carried out, illustrating the methods of testing the alloy during the melting period, and this was followed by showing the practical use of the friction testing machine. Mr. Harris laid emphasis upon this feature, so as to give a proper understanding of the company's reasons for guaranteeing their babbit metals to give excellent service. With this information the salesmen would go forth and feel competent to answer any questions regarding the production

F. Harris



H. C. Crow



H. E. Cameron

E. Parkin

of absolutely perfect alloys, and even to describe in minute detail the process of production. A report was then presented of the year's babbit metal business, and it was shown that if all the babbit metal sold by the Canada Metal Company in 1916 were gathered for one shipment it would take a train load of 43 cars to move it.

One of the plans in operation by the company for encouraging the salesmen to educate themselves thoroughly in their lines is that they are asked to send in questions which are to be brought up during the convention for discussion. For some weeks previous to the convention these questions are sent in and the interest taken by salesmen in this opportunity is illustrated by the following examples:

1. What do you mean by specific gravity? Describe how to estimate it and give an example.
2. How do you determine the Brinell hardness of metals?
3. What is the electro-magnetic method of determining the hardness of metals?
4. What is the scleroscope?

These subjects were dealt with fully by Mr. H. C. Crow, and examples were given of how to ascertain the specific gravity of metals or of any other substance which is insoluable in water.

A Visit to the Manufacturing Departments

Visits were then paid to the different departments of the factory, and the salesmen were afforded an opportunity of seeing the actual making of lead traps, lead bends, and lead pipe, thus obtaining a wider acquaintance with the goods produced than they could obtain in any other manner. It was especially instructive to them to see lead pipe made of all sizes up to 12 in. in diameter. The latest press installed was operating, and made a length of pipe 12 inches in diameter and 12 feet in length, which weighed approximately 600 pounds. Wire solders were also made, and the salesmen were given examples of various grades and sizes, from No. 8 gauge to the finer sizes up to 21 gauge.

A demonstration was also given of the production of sheet lead. The pig lead was first exhibited and, after being melted and made into large slabs it was transferred to the rolling department, where sheet lead was made in all sizes and lengths up to 7 ft. 8 in. in width and 50 ft. in length. An interesting comparison was then afforded by showing the finer rolls which are used for producing tin and lead foils.

Under the guidance of Mr. W. G. Harris, Jr., a tour of inspection was then made to the shell forging plant, which has only been operating for a few months. This was a surprise to most of those present. They were shown the complete process of manufacture, from the steel billets to the steel shell (in the rough), ready for the machinist. They were informed that in the near future 12,000 of these rough shells would be produced daily. The salesmen took particular interest in the handling of the red-hot bars of steel and their final piercing by the large hydraulic presses.

Hydraulic Press for making Lead Pipe—Canada Metal Co.

Subsequently Mr. W. G. Harris, Jr., replied to a number of questions, such as requests for explanation as to the natures of Tobin bronze, Muntz metal, monel metal, pewter metal, and Britannia metal. He dealt very fully with each of these subjects.

Mr. W. G. Harris, Sr., president and founder of the Canada Metal Company, was unavoidably absent during the commencement of the convention, but after his arrival delivered an address upon the duties of a salesman and his connection with the firm. He discussed in detail the true meaning of this connection and the necessity for real co-operation between the field, the office, and the factory. One of the signs on the wall of the convention hall contained the maxim: "What I can do, I ought to do; what I ought to do, I will do." He urged the salesmen to dwell upon this maxim, as it would be a great help to each of them in their work. Those who knew the president's compelling personality realized that when he spoke of putting the "punch" into business he only advised what he had always done himself. In fact, as he declared, it was putting the punch there that had built up this enormous organization.

After the passing of the usual votes of thanks, Mr. W. G. Harris, Jr., dismissed the visitors in a brief but stirring address. He expressed the hope that all had derived useful knowledge from the meeting, and that they would go out upon their work with the same conviction as he himself had, that 1917 would be another great year for the prosperity of Canada. His reasons for this conviction were: Ontario was busy. Ontario was a producer. Her factories, working to capacity, could not keep pace with the demands. New factories were being built. New industries were being established. The whole province was pulsating with the dynamic energy of tremendous commercial achievements.

Canada was making colossal strides in manufacturing. To-day Canada was recognized as a factor in world commerce. We were now exporting at the rate of $173 per capita, as compared with $63 per capita in the United States. Canada's total exports were more than one-fifth of the trade of the United States' total. Three years ago Canada had an adverse trade balance of $310,000,000. To-day she had a favorable balance of $367,000,000. This means that in 1913 Canada was buying abroad at the rate of $86 per capita and selling at the rate of $47 per capita; but in 1916 her sales abroad equalled $132 per capita, while her buying remained unchanged at $86 per capita. Canada's net gain in foreign commerce alone during this period was over $677,000,000, or about $85 per capita, and the Province of Ontario was producing more than one-half of the manufactured products turned out in Canada.

Return Your National Service Cards

Those in charge of the National Service have found difficulty in securing the return of the cards from certain points, such as lumber camps. This is due in a measure to the remoteness of the camps from places where the cards could be easily collected. The directors, therefore, request that the managers of lumber firms, owners of limits, superintendents, and foremen co-operate with the department and make efforts with a view to seeing that the cards are signed and returned at once, either through postmen or direct to the National Service Department, Ottawa. National service is not in any sense a form of conscription. The cards are not to be used for that purpose. They are to enable the government to make an inventory of every male between the ages of 16 and 65, so as to obtain voluntary offers of service for national work. It is often the case that persons signing are now doing valuable work of a national character, and in these instances the government would not avail themselves of the offers; but the government desires complete information as to what men are available for home employment,

What's the Use of Worry?

A writer in a Chicago paper recently contributed a little masterpiece entitled "Speaking of Worries." He wrote as follows:

"You have two alternatives—either you are mobilized or you are not. If not, you have nothing to worry about.

"If you are mobilized you have two alternatives—you are in a camp or at the front. If you are in camp you have nothing to worry about.

"If you are at the front you have two alternatives—either you are on the fighting line or in reserve. If in reserve you have nothing to worry about.

"If you are on the fighting line you have two alternatives—either you fight or you don't. If you don't you have nothing to worry about.

"If you do, you have two alternatives—either you get hurt or you don't. If you don't you have nothing to worry about.

"If you are hurt you have two alternatives—either you are slightly hurt or badly. If slightly you have nothing to worry about.

"If badly you have two alternatives—either you recover or you don't. If you don't, and have followed my advice clear through, you have done with worry forever."

Personal Paragraphs

J. D. McCormack, manager of the Canadian Western Lumber Company, has been enjoying a short and well-earned vacation in California.

Robert McNair, of the Robert McNair Shingle Company, Vancouver, B.C., has been paying a visit to relatives in New Brunswick and visiting Ontario and the New England States.

Prof. E. J. Zavitz, Provincial Forester for Ontario, reports that the organization work in connection with the new forest protection operations of the province is going ahead in a satisfactory manner and that good men are being obtained for the important executive positions.

James Thompson, M.P.P., of Havelock, Ont., president of the Monteith Pulp and Timber Company, who some weeks ago lost two fingers of his left hand and severely injured his left knee and right arm while attempting to board a train on the T. and N. O. Railway, is making good progress toward recovery. He expects to take his seat in the legislative assembly in a short time.

J. H. White Appointed Assistant Forester for Ontario

Mr. J. H. White, lecturer in botany and forestry in the University of Toronto, has been appointed Assistant Provincial Forester for Ontario. Mr. White has already assumed his new duties, in association with Prof. E. J. Zavitz, Provincial Forester for Ontario. An arrangement has been made whereby Mr. White will also be able to devote four hours a week to work in connection with the Forestry Faculty of the University.

Robert Bury & Company (Canada) Limited

Robert Bury & Company (Canada) Limited, recently incorporated, have taken over the business of Robert Bury & Company, lumber merchants, Toronto, and the Dominion Mahogany & Veneer Company, Limited. The head office of the new company will be continued at the old address, 455 King Street West, Toronto, where a large variety of stock will be carried in the veneer warehouse, and mahogany lumber in the yards, foot of Spadina Avenue. Native veneers and tropical hardwood will be manufactured at the Montreal plant.

Car Shortage Restraining British Columbia Trade

Vancouver, B.C., March 5.—(Special to the Canada Lumberman.)—Frequent embargoes on rail shipments to Eastern Canada are causing great inconvenience to the lumber industry in this province, and are having a serious effect upon mill operations and shipments. An official of the C.P.R. recently said that on February 20 the company had in the yards at Vancouver 966 cars waiting for steamers and about 100 loaded cars for the East, held on account of embargoes, while fully 1,500 cars were on the way to Vancouver, some of which were arriving daily. It is almost impossible to obtain box cars, but there are a few stock cars which can be shipped east. Local lumbermen are unable to suggest any measures for affording immediate relief, being of the opinion that the shortage will have to be tolerated until Eastern lines are clear of congestion.

British Columbia Lumber Had a Good Year's Trade

Mr. J. G. Robson, in presenting a report recently to the Board of Trade of New Westminster, B.C., stated that there had been considerable improvement in the lumber industry of British Columbia during the past year. The production during the year had been about 70 per cent. of normal, and the price had averaged about 15 per cent. above that of 1915. The export business had shown a very satisfactory increase, considering the great shortage of tonnage. Apparently British Columbia would now take her place in the lumber exporting provinces of the Dominion, a lumber fleet being under construction and many enquiries being received from all fir-consuming countries. Much lumber had been shipped to Europe during 1916 for war purposes, a large portion of it having been sent by rail to the Atlantic seaboard. The prospects for 1917 were much better than they had been for some years past. The demand in Eastern Canada was far exceeding the most sanguine expectations, and British Columbia lumber, having apparently become established in that market, would probably increase its trade extensively.

Forest Products Laboratory to Have Experimental Pulp Mill

The Forestry Products Laboratory of Canada, Montreal, P. Q., are drawing plans for the erection of an experimental pulp mill. Researches are to be carried on in the making of sulphite and sulphate pulp, and the mill is expected to be of considerable benefit to the industry. A government appropriation has already been made for the purpose. C. B. Thorne, of the Riordon Pulp and Paper Company, and H. Helin, of the Wayagamack Pulp and Paper Company, are assisting the laboratory in planning the mill and the companies they represent are giving the services of draftsmen and engineers.

Lauder, Spears & Howland Erecting Mill Near Mowat, Ont.

Lauder, Spears & Howland, of Toronto, are building a new mill in from Mowat, Ont., on the Canadian Northern Railway, having purchased new limits in Blair and Mowat Townships. The machinery being supplied was built by the William Hamilton Company, of Peterborough, Ont., and consists of necessary log deck machinery, double cutting steam tension band mill, horizontal resaw, edger, slasher, trimmer, and lath machinery, and will be up to date in every particular. The power is being supplied by an 18 in. x 42 in. Goldie & McCulloch engine. The building of the mill is being rushed through as rapidly as possible, under the guidance of Mr. Clarence Bullis, and the company expect to begin operations in June next.

Exports to United States from Ottawa District

Exports of lumber, lath, shingles, etc., from the Ottawa consular district to the United States during 1916 and 1915 are reported by the United States consul at Ottawa, as follows:

1916.		Value.
Dressed lumber	18,734,006 feet	$ 527,549
Rough lumber	125,245,661 feet	2,822,086
Lath	43,947,250 pieces	149,712
Pickets	7,359,750 pieces	43,130
Shingles	9,673,000 pieces	40,645
Pulpwood (peeled)	42,498 cords	254,309
1915.		**Value.**
Dressed lumber	9,734,874 feet	$ 224,113
Rough lumber	73,469,359 feet	1,824,718
Lath	35,780,250 pieces	125,073
Pickets	6,349,500 pieces	34,907
Shingles	7,693,000 pieces	24,688
Pulpwood (peeled)	3,160 cords	12,648

New Brunswick Exports Increased

Transatlantic shipments of lumber from ports on the north shore of New Brunswick during 1916 and 1915 are reported as follows:

	Sup. feet. 1915.	1916.
Campbellton	42,131,020	69,045,740
Dalhousie	17,000,000	14,500,000
Bathurst	10,779,943	36,912,222
Chatham	46,156,057	47,234,540
Newcastle	51,579,879	54,603,243
Richibucto	2,029,658	1,624,609
Buctouche	909,604	1,732,272

For the entire province the totals are as follows:

1915	325,809,743 sup. ft.
1916	390,328,479 sup. ft.

Preliminary Figures on 1916 Wood Pulp Production in U. S.

Returns from 160 wood pulp mills throughout the United States show that the reporting mills used in 1916, 3,419,000 cords of wood and had an output of approximately 2,229,000 tons of pulp. Of the total production of wood pulp thus far reported 973,329 tons was made by the mechanical process, 892,110 tons by the sulphite process, 314,085 by the soda process, and 49,053 by the sulphate process. No figures on pulp wood and wood pulp consumption have been compiled by the Forest Service since 1911, and it is expected that the present census will reveal a number of changes both as to amount and kinds of wood used. It is stated that the higher stumpage values and the decreasing supplies of spruce and hemlock, as well as improved methods of manufacture, have caused pulp makers to use increasing quantities of other woods.

Arkansas Soft Pine—How to Finish It

"Arkansas Soft Pine—How to Finish and Paint It" is the title of a very attractive booklet, published by the Arkansas Soft Pine Bureau, Little Rock, Ark. In its whole preparation and execution this booklet reflects the greatest credit on those who have prepared and published it. It gives one a very definite conviction that the lumber to which it refers must be exceptionally suitable for all interior and exterior building purposes. In fact, the charming finish of the book itself is strongly suggestive of the delightful appearance of Arkansas soft pine, when properly handled, either as an interior trim or as an exterior wood.

The booklet contains a number of fine illustrations in color, in addition to much practical and instructive reading matter relating to Arkansas soft pine. Brief, but valuable, instructions are also given for finishing this wood in the various suitable manners. The idea of the publishers of the book is to furnish something that will serve both the lumber dealer and the consumer as a source of dependable information for the proper finishing of Arkansas soft pine.

Education of a Successful Lumberman

Experience of Retailing, Wholesaling, and Manufacturing Each Essential—Salesmanship the Dominant Note—Thorough Acquaintance with all Details Necessary

By G. X. Wendling*

Salesmanship cannot be taught successfully by correspondance, or in schools alone, as the human touch is indispensably necessary in every transaction as it arises, for the reason that transactions differ in all instances, owing to the size and kind and to the person buying. It stands to reason that special training in actual practice in the industry is necessary; hence the man who has the patience and determination to learn and the grit to stick has his full chance for success.

The lumber salesman's field may, for convenience, be divided into three sections:

1. The beginner—preferably the retail field.
2. The centre or middle section—the wholesaler and jobber; and
3. The field of the manufacturer.

In my opinion, the salesman should start at the very bottom of the industry. He should secure employment in a retail yard, learning the proper care of the stock, and likewise gain a complete familiarity with all of the materials on hand at all times. He should learn sizes of material by sight, become a judge of grades by sight, together with the knowledge of the proper uses of all materials and grades suitable to the character of the structure or purposes for which the material is intended, thus being in a position to advise with the purchaser and suggest proper sizes and strengths as well as qualities.

This comprehensive knowledge begets the confidence of the buyer, and if, in addition, the junior retail salesman masters the problem of making a comprehensive detail by items of everything entering into the entire structure, this fund of information will further win and hold the confidence of the buyer, and if these valuable assets are properly used, they will add much to the capital stock of the salesman, and increase his efficiency in his own and his employer's interests.

The matter of carefully reporting to the management shorts and excuses by a careful and constant check of stocks on hand, and likewise a careful check of sold orders and estimates, will serve to keep yard stocks fresh and right; and, while the salesman may figure that this feature is not the salesman's proper burden, it nevertheless follows that managers are ever looking for competent and conscientious assistants, and it is my observation that they are chosen as the result of efficiency in all branches, and the salesman in the yard who will, no matter how dark the night, or how heavy the rain may be pouring, or how late the hour, arise from his slumbers to attend to the employer's business, if imperative, need be but little concerned about promotion, as promotion will look him up when least expected. Such attention and devotion to his own success and the employer's interests are, in fact, the qualities that lead to junior, and later senior, partnerships.

If the course herein pointed out has been followed and mastered in the retail branch the salesman will have laid a good foundation for success in other and larger fields.

Wholesale Salesmanship

I will now enter the second stage in the progress of the salesman, or rather the next step if he pursues the work in the logical and progressive order, namely, the wholesaling or jobbing trade, wherein salesmen are generally recruited from the retail field, as the steps should naturally be taken in sequence.

Here transactions are larger—by the car or cargo—and, after all, a cargo is only a larger lot.

In this field the salesman comes in contact with the skillful buyer who understands the game thoroughly and knows what he wants and when he wants it, but here the fundamentals employed in the retail field will prove of inestimable basic value, and should be kept ever to the fore. The following principles are indispensable:

A correct representation of true grades, sizes, lengths, and thickness, and if there should be any variation in grades the delivery should be a slight rise in quality rather than a slight degradation of true grade.

The salesman should use the greatest care in the matter of delivery, and in all instances make his statements when taking the order so that the delivery will be well within the promise made, as it is much safer to decline an order to-day than to take an order in an effort to hold the customer who, when not receiving the materials as promised, loses confidence in the salesman and his house, thus destroying the comity of present and future relations.

In this connection it is well to state that no latitudes should be taken by the salesman in the matter of substituting materials to take the place of shorts in stock without first conferring with the buyer and securing either his approval or his authority for the substitution or the elimination of the short item from the order. The wisdom of this course is so obvious that I will comment no further on this point.

It is of utmost importance that the salesman keep in touch with customers in his territory by whatever method may be most convenient to his patron. Such attention will have the desirable effect of keeping up his acquaintance and continually widening it to his advantage, and should provide him with many new patrons out of the established friendships thus developed.

The Manufacturing Salesman

The next stage of development lies in salesmanship in the manufacturing field. In this field the management is constantly seeking assistants from the wholesale field, and here the ablest wholesalers are in the forefront and on the way to engage in the manufacture of lumber, where finance comes in for its share in the choice of associates, and a very happy combination is sometimes formed as the wholesaler generally brings a wide and valuable market experience so necessary in an ever-expanding lumbering industry. Thus salesmanship in the strongest sense commands thoughtful consideration and becomes of dominant value to the industry in all of its branches.

Some years ago I visited one of the large packing institutions in Chicago. After a general inspection of the plant, I had the pleasure of a conference with the general sales manager. I asked him about the annual volume of their trade. He said: "About $1,000,000 per day, or, in round figures, $300,000,000 annually." Among other things, he stated: "Between 3 p.m. and 4 p.m. of each day the president of the company, if in Chicago, makes it his business to drop into his office and ask the uniform question, "What was the amount of sales yesterday and the amount of the collections?" and if the president is not at the plant he invariably calls on the phone and asks the same questions. If absent from Chicago or in any foreign country, he receives a wire or cable daily giving the desired information.

The president called while I was with the general sales manager and asked the standard questions and received the desired answers.

On being introduced to the president I asked the reason for this extreme accuracy at the exact hour. The president answered, saying: "No matter how magnificent and perfect our product, if it is not sold and collected promptly, it's only a short time to where the sheriff would get us. Our entire fabric know that I insist on this information daily, and the psychologic value of my getting the information keeps the sales department geared up to the necessary pitch so our product is sold close up and collected equally close. Thus we keep our working capital liquid and in a mobile condition constantly."

I was deeply impressed with the magnitude of the enterprise, the concentration of energy in every department, and the final success of all departments gravitating to the magnetic centre, around which the entire business revolved—the sales department—without which, organized on a scientific basis as it was, the entire structure would not last one month. What is true in that gigantic institution is true of any other enterprise in a lesser or proportionate degree. It thus follows that salesmanship is the dominant note in the song of success in the commercial world. If you would succeed, know your business in all of its branches, and push the sales up to your production and produce the limit.

* Address delivered before Hardwood Manufacturers' Association Convention.

Logging Camp Comforts in the United States

Reports from Maine logging camps that the "lumberjacks" are becoming fussy about the kind of camp they live in and that the camps are having trouble in making foreign labor stick to their jobs do not apply in the West, according to Wisconsin lumbermen. "There is no demand by the men for a change in the conditions of the camp," according to the president of an important lumber company. "The employers, however, of their own accord, are giving the men better houses, bunks, etc. Conditions are quite different from what they were in the old logging camps, and this is true throughout the entire Pacific Coast and Southern territory as well, I understand. Of course, there is a constant change of men. I should say that in a camp of 120 men about three men leave and three new ones come in every day. This is because the men hear that the men at another camp are getting better wages—which is usually not so—and go over to the other camps. We have found that foreigners are more apt to cling to their jobs than other men. As to the food, it is better than you can get at any hotel. These things have all been brought about voluntarily by the employer."

Several Wisconsin logging camps are lighted by electricity, and in one of them baths have been installed.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Maple and Birch Wanted

Wanted: Maple Axles, 4¼ x 5¼. Also Birch Squares, 4¼ x 5¼. Jackson Wagon Co., St. George, Ont. 6-7

Maple Wanted

Wanted several hundred thousand feet of dry 4/4 Maple for prompt shipment. Apply at once to Box 504, Canada Lumberman, Toronto, Ont. 3-6

Lumber Wanted

Wanted for delivery in March, April or May, 150,000 feet Soft Elm, 2 in. — 3½ in. thick; also 3 to 5 cars 2 in. and 3 in. thick Rock Elm. Reply Box 517, Canada Lumberman, Toronto, Ont. 4-7

Wanted

2 cars Dry Peeled Cedar Posts, 3½ to 4½ —8 ft.
2 cars Dry 1 and 2 in. No. 1 Hemlock, 10-16 ft.
1 car Dry Pine, 1 x 4, 8 and 10—10-16 ft., for boxes.

Cash price less 20 per cent.
Box 195 Jordan, Ont. 5-6

For Sale–Lumber

Lumber For Sale

300,000 ft. B.M. 1 x 4 and up Clear and No. 1 Spruce.
400,000 ft. B.M. 2 x 4 to 2 x 10 Spruce. Piled widths and lengths separate.

GEO. C. GOODFELLOW,
6-6 Montreal, Que.

For Sale–Machinery

Machinery For Sale

Cowan No. 2 Double-Surface Planer and Matcher. Cowan Vertical Boring Machine, in excellent condition, at bargain. A. J. Lindsay, 92 Pembroke Street, Toronto. 3-6

Chopper For Sale

For sale, one Joliette Chopper, 13 inch, in first class condition. Apply J. W. Tuttle, Curries, Ont. 4-7

Boiler For Sale

One 150 h.p. Return Tubular Boiler, 6 ft. x 18 ft., with fittings, including steam pump. Has been in use about one year. Address Room 622, Transportation Building, Montreal, Que. 6-6

For Sale

For saw, shingle and lath mill machinery write the G. Walter Green Co., Limited, Peterboro, Ont. We have a nearly new 50-brake H.P. Case engine on skids. 6-9

For Sale

Ten miles of 52 lb. relaying rail fitted with Atlas joints for prompt shipment. For particulars apply to

JOHN J. GARTSHORE,
58 Front Street West,
5-8 Toronto, Ont.

List of Saw Mill Machinery For Sale

Item No. 1—One Circular Resaw, complete, with two saws. Condition good. Wm. Hamilton Co. make.
Item No. 2—One Large Circular Saw Frame, pulley and arbor complete, (Metal frame), good repair. Waterous make.
Item No. 3—One Seven Block Carriage. Can cut sticks up to 40 feet in length. Wm. Hamilton Company's latest make. No set works.
80 feetV Steel track.
80 feet Flat Steel Track for same.
Three 1¼ in. Served Steel Wire for feed for same.
One Cunningham Twin Engine for above carriage. Practically new.
Item No. 4—50 feet V Steel Track.
50 feet Flat Steel Track.
Item No. 5—Three Head Blocks and Bunks, with Payette dogs for Hamilton No. 2 Carriage.
Item No. 6—One Twin Saw Frame and Arbor, pulley and saws with track and feed chain complete. Condition good. William Hamilton Company make.
Item No. 7 — One Lath Mill. One Bolter. One Picket Machine with saws. In fair repair.
Item No. 8—One New Mershon Horizontal Band Resaw and saws complete. Only used part of one season.

Address
The Colonial Lumber Company, Limited.
4-7 Pembroke, Ont.

Wanted–Machinery

Refuse Hog Wanted

Wanted to purchase a used refuse hog for saw-mill. Apply Box 518, Canada Lumberman, Toronto, Ont. 4-S

Wanted

Wanted set Hot Blast Grates. State size and price. St. Marys Wood Specialty Co., Ltd., St. Marys, Ont. 6-6

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

POSITION WANTED BY A FIRST CLASS ACCOUNTANT, for either inside or outside work, with some lumber company operating in Eastern Canada. Apply in writing to Box 540, Canada Lumberman, Toronto, Ont. 6-6

BAND SAW FILER wants position, single or double cut, good references. Box 535, Canada Lumberman, Toronto, Ont. 6-6

LATH MILL MAN wants position to run lath mill by the day; will go anywhere. 12 years' experience. References. Box 537, Canada Lumberman, Toronto, Ont. 6-8

BAND SAWYER wants position, right hand mill preferred; 20 years' saw mill experience; first class references. Box 495, Canada Lumberman, Toronto, Ont. 4-7

EXPERIENCED LUMBER SALESMAN wants position, travelling or office. Good recommendations. Box 545, Canada Lumberman, Toronto, Ont. 6-6

SAWYER wants position; fifteen years' experience. Circular sawyer, turn heading, and always file my own saws, in small lumber mills. Box 533, Canada Lumberman, Toronto, Ont. 6-7

WANTED POSITION, by a first class mechanic, 25 years' experience in charge of modern high capacity Saw Mills. Can handle any type machinery. Address first instance, Box 497, Canada Lumberman, Toronto, Ont. 2-7

Married man, 37 years of age, with 11 years' experience in logging office of large lumber concern, desires change. Willing to go to any part of Canada. For further particulars apply to Box 498, Canada Lumberman, Toronto, Ont. 5-7

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

WANTED POSITION AS SUPERINTENDENT OR FOREMAN in planing mill. Am thoroughly experienced in all lines of interior fittings,, sash, doors, hardwood flooring and box making. Can estimate and do draughting. First class on blue prints. Can handle cost system, get results and cut costs. References. Box 512, Canada Lumberman, Toronto, Ont. 3-6

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

WANTED FIRST CLASS MILL ENGINEER for saw mill, long season each year. Box 539, Canada Lumberman, Toronto, Ont. 6-6

LUMBER MEASURER WANTED, to ship from the pile. Must be experienced, able to handle men, sober, steady. All-year job to right man. State full particulars to Box 536, Canada Lumberman & Woodworker, Toronto, Ont. 6-7

Business Chances

For Sale

Planing, saw and chop mill, and auto truck, 1¼ ton capacity, jacks, pipe dies, vise and anvil. Everything as it is half price. Want to go West. Apply to John McCormick, Lawrence, Ont. 1-6

Logging Contractor

WANTED—Man with full logging equipment, to contract to log mill cutting eight million feet per annum of Vermont hardwoods; at least fifteen years cut. Box 541, Canada Lumberman, Toronto, Ont. 6-6

Contract For Sawing

WANTED—Man with band mill and equipment to contract to saw and put on sticks five to ten million feet of Vermont hardwoods per annum. Ten to twenty years cut. Box 542, Canada Lumberman, Toronto, Ont. 6-6

For Sale

Saw and planing mill, with lumber yard, and about $5,000 stock; good village and farming community in southern Ontario. Excellent railway facilities. Price $15,500.00. Box 510, Canada Lumberman, Toronto, Ont. 3-6

Wanted

Partner with some capital to take interest in one or more very valuable inventions, two of which are the greatest the world has ever known. Write P. O. Box 228, Woodstock, N.B., Canada. 5 t.f.

FOR SALE

Valuable Spruce Timber Lands. This is an exceptional opportunity for pulpwood. This property is situated on the Canaan River and its branches, within easy reach of navigation. The mill in connection with this property is at the head of navigation on the Washademoak Lake, a tributary of the St. John River. The property contains about 47,000 acres. About 15,000 freehold and 32,000 New Brunswick Government limits. This property has been exceptionally well protected and as to the freehold, has on it an exceptional spruce growth which is in excellent condition, and would produce a very large quantity of superior quality of pulpwood.

For further information and details, apply to

THE S. H. WHITE CO., LTD.,
3-6 Sussex, N.B.

Miscellaneous

Timber Investment

Owner of twelve British Columbia surveyed timber licenses located along large drivable interior river, containing over ninety million feet of choice cedar, fir, spruce, hemlock, and white pine, including 35,000 large cedar light or 'phone poles. Will give good title for $38,000. For further information, address Timber Owner, Box 1550, Victoria, B.C. 6-6

For Sale

24 B. C. Timber licenses (perpetual) on inland passage to Prince Rupert. Also properties at Chilliwack Lake and Quatsino Sound. All good logging propositions.

CARL BLOCK,
5-10 Peoria, Ill.

Township Foster
Timber Limit For Sale

License Renewable. No time limit; 36 sq. miles on North Shore. Abundance of excellent timber throughout its entire area. Pine, Birch, Hemlock, Spruce, Cedar Ties, Poles and Pulpwood. Roads all cut and ready for operation. Close to two railroads. Splendid chance for portable mill operation. For particulars apply R. B., Box 544, Canada Lumberman, Toronto, Ont. 6-9

SALE OF HARDWOOD TIMBER

Tenders will be received by the undersigned up to and including Monday, the 2nd day of April next, for the right to cut the hardwood timber on the Townships of Merrick, Mulock, Stewart and Lockhart in the District of Nipissing.

Tenderers shall state the amount they are prepared to pay per M. ft. B.M. for the hardwood timber in addition to the Crown dues of $1.50 per M. ft. B.M., and the amount per cord for timber cut into cordwood, in addition to Crown dues of 25c per cord.

The successful tenderer shall be required to erect a suitable plant, costing with the equipment and machinery thereof not less than $100,000, on or near the territory, and to manufacture the timber in the Province of Ontario.

Parties making tender will be required to deposit with their tender a marked cheque, payable to the Honourable, the Treasurer of the Province of Ontario, for $10,000, which amount will be forfeited in the event of their not entering into agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

G. H. FERGUSON,
Minister of Lands, Forests and Mines.

Toronto, February 17th, 1917.

N.B.—No Unauthorized publication of this notice will be paid for. 5-6

Auction Sale of Timber License

Under and by virtue of the powers contained in a certain hypothecation which will be produced at the time of sale and under and by virtue of all other rights and powers thereunto enabling, there will be offered for sale by public auction on Wednesday, the 2nd day of May, 1917, at the hour of 2 o'clock in the afternoon, by C. M. Henderson & Co., Auctioneers, at their premises, 128 King Street East, in the City of Toronto, the following property, namely:—

All that certain license to cut timber in and upon certain portions of the Township of Proudfoot, which license is known as Number 286 of the Season 1916-1917, and being Berth Number 3 in the said Township, as set forth and described in the said license, saving and excepting thereout all such lots or parcels as are thereby excepted.

The limit for which this license is held is said to be favorably situated and easy of access. There are said to be considerable quantities of valuable hardwood upon the limit, over 3,000,000 feet of birch and over 800,000 feet of maple, being stated to be suitable for manufacture into lumber, besides upwards of 100,000 cords of hardwood.

Terms—Ten per cent. of the purchase money to be paid down at the time of sale and the balance to be paid within thirty days, without interest.

The License is offered for sale subject to all the conditions and regulations of the Department of Lands, Forests & Mines of Ontario, affecting the same.

The property will be offered for sale subject to a reserved bid.

Further particulars, terms and conditions of sale will be made known at the time of sale or upon application to Johnston, McKay, Dods & Grant, Traders Bank Building, Toronto, Solicitors for the Vendors.

Dated at Toronto this 12th day of March, 1917. 6-9

Kiln Drying

When air passes through a pile of green lumber it is cooled and downward circulation is caused. A method of piling which facilitates this was tried in the dry kiln and proved very successful in drying green maple and other woods. This improvement has enabled us to dry stock quicker and with less loss than heretofore, says a report from the U. S. Forest Products Laboratory.

One of the difficulties attendant upon kiln-drying lumber is the tendency to case-harden. Steaming wood for a brief period after it was dry was tested on a commercial scale and proved successful in removing case-hardening.

The new high-velocity-low-superheat method of rapid drying proved satisfactory with southern yellow pine, a carload of which was sent to the Laboratory for test by a southern lumber company. Arrangements have been made to try this process on a commercial scale. The lumber tested was dried from the green condition to six per cent. moisture in sixty-four hours. In other tests it was dried to shipping weight in thirty-nine hours.

Experiments in kiln drying air-dried red gum were very successful, the stock being dried with less than one per cent. loss.

The shape of shoe lasts makes it difficult to season the blocks from which they are made, and manufacturers have suffered serious losses in drying lasts. Experiments in kiln-drying green last blocks have given promising results, about 30 per cent. of the blocks being dried perfectly in twenty-one days. Present methods of air-drying require about one and one-half years.

Pieces of air-dried wood were treated in a variety of ways to determine best methods of retarding their absorption of moisture from the air and loss of moisture when placed in dry air. Specimens were treated with paraffin, impregnated with sugar, heated at high temperature, painted, varnished, coated with Bakelite, impregnated with creosote, etc. Curves have been drawn showing the relative shrinkage and swelling which took place in these boards when exposed over a period of a year to atmosphere containing various humidities. The most effective results were secured by coating the wood with paraffin. Excellent results were also obtained from high temperature treatments and by impregnating the wood with sugar.

Joints and Fastenings

Tests of the efficiency of various types of wooden joints have been made at the U. S. Forest Products Laboratory, and about 3,000 nail-pulling tests were completed on nails driven into twenty-five different species of American timber. While the data have not yet been analyzed, it appears that the holding power of nails has a definite relationship to the density of the wood, and that there is practically no difference in strength between a solid beam and a wooden beam of the same dimensions made of two planks nailed together.

HARDINGE
Watchman's Clocks
Write for details
SIGNAL SYSTEMS CO.
205 Stevenson Bldg., TORONTO

Union Lumber Co.
Limited

SAWING NOW!!!

Red and Jack Pine

can cut special bills up to 10x10-16

Union Lumber Co., Limited
701 Dominion Bank Building
TORONTO, CANADA

NATIONAL RAILWAY MOTOR CARS

Standard Section Motor Car

An exceptionally practical car for use by lumber companies and short line railways. Strictly modern in every respect. Free running 4 H. P. reversible motor—starts, stops or reverses like an auto by simply shifting a lever, can be thrown into low or high speed or neutral as desired; sliding gear transmission, two speeds forward and two backward; sliding base clutch so car can be started slowly without any sudden jerk or jar—on low gear will pull several trailers, or on high, speed up any desired speed. Frame made of hardwood, reinforced with angle irons, all bolted—not a nail or a screw used in entire car.

Price $160
(F.O.B. Factory)

We also make a full line of other motor cars, from light 2 H.P. speeders to heavy 12 H. P. 4 cycle Passenger Car or tractors. Send for our 1917 motor car catalog illustrating the full line.

NORTHWESTERN MOTOR CO., 1500 SPRING ST. Eau Claire, Wis.

Review of Current Trade Conditions

Ontario.

It is a very difficult matter to say anything definite in regard to the lumber trade situation in Ontario at present, on account of the unsettled state which prevails generally in the manufacturing, wholesaling, and retailing quarters. So far as the manufacturers are concerned, the operations in the woods this winter will result in a fair-sized cut being taken out, but its cost will be much higher than in former years, the estimated advance being $4 to $5 per thousand feet. At the beginning of the winter's operations there was a general belief that the output of logs this winter would be considerably reduced. Reports that we have now received indicate that this belief was not any too well founded, and that there will be fully as much taken out this year as there was last year. However, with the very high cost of logs and the uncertainty and high wages conected with the labor situation, the prospect in regard to the output of lumber during the present summer still remains very uncertain.

A very large volume of war business is being obtained at present, including boxes and construction material for explosive companies and others producing war materials. This trade is being carried on at a good price, the consumers being ready to pay well for prompt delivery. This price does not necessarily make the general price, however, in any particular line. The building trade situation, while showing some improvement as compared with a year ago, has not yet developed anything that can be taken as an encouraging sign of fair business. In fact, the outlook is for another quiet year in this line. Stocks of lumber in nearly all lines are very low, and consequently the only considerations, when one needs lumber to-day, are those of price and delivery. Deliveries are still extremely difficult to make, on account of the failure of the railway companies to provide sufficient cars. The general opinion seems to be that this situation is likely to grow worse rather than better. The Canadian Pacific Railway has an embargo in effect for some time upon shipments from British Columbia to Toronto and to points east of Smith's Falls, including Ottawa and Pembroke. Even when embargoes are lifted for a time, it is a very difficult matter to obtain cars and get them under way.

Varying opinions are expressed in regard to collections. The majority, however, agree that collections are being made without exceptional trouble.

Eastern Canada

Exports of lumber from St. John, N.B., to Great Britain have continued on a steady basis and are expected to do so until the close of the winter port season. It is now certain that the mill wharves at St. John will be entirely cleared when the plants commence operations once more. In addition, the St. John mills have practically all sold their cuts of deals for the coming season. The uncertainty arising out of the British Empire embargoes has prevented buyers from making further contracts ahead. They are waiting to learn more definitely what the British Government intends to do. The United States market continues to improve. The base price at Boston, $34, is the highest ever recorded. Spruce boards are sold out at St. John. Lath are firmer, 1⅝ in. being worth $3.25 and 1⅜ in. $3, at the mills at St. John. The spruce market is exceptionally encouraging and everything points to steadily advancing prices during 1917, so that manufacturers are counting upon doing well enough to cover their greatly increased operating expenses.

Railroad embargoes in Canada, and the import prohibitions in Great Britain are making trade conditions at Montreal increasingly difficult. At present the trade is concerned chiefly with deliveries and stocks, prices not being of much concern to anybody. Orders are plentiful, but it is practically impossible to fill them.

The spruce market at Boston shows another advance as the result of the very strong demand. Wholesalers are asking $34 for frames up to 8 in., f.o.b. Boston, $35 for 9 in., $36 for 10 in., and $37 for 11 or 12 in. Market conditions seem fully to warrant these record prices. Scantling is firm at $30 for 2 x 3 in., 2 x 4 in., 2 x 5 in., 2 x 6 in., and 2 x 7 in., which is more than 40 per cent. higher than the prices of last summer. Other random sizes are being quoted as follows:—2 x 9, $34; 2 x 10, $35; 2 x 12, $36; 3 x 4, $31; 3 x 10, $36; 3 x 12, $37; 4 x 6, $32; 4 x 8, $33; 6 x 6, $32; 6 x 8, $33; 8 x 8, $34. The board market is advancing. For spruce covering boards 5 in. and up wide, 8 ft. and up long, most sellers are asking $25. Matched boards 10, 12, 14 and 16 ft. are strong, $27 being the lowest price. There is a fair enquiry for hemlock at Boston, but not quite so much activity as there was a month ago. Prices show an advancing tendency. Clipped hemlock boards 10, 12, 14 and 16 ft. are being quoted at $25 to $26. Hardwood prices at Boston show numerous advances. The price of sap birch to-day is more than that of red birch a few months ago. Plain oak has advanced. Thick maple is very scarce and prices are strong. For high grade maple, in inch stock, the price asked is $50. Hardwoods, 1sts and 2nds, 1 inch, are showing the following prices:—Basswood, $45 to $48; maple, $47 to $49; plain oak, $65 to $67; quartered oak, $88 to $91; sap birch, $55 to $60; white ash, $58 to $61. Shingle quotations at Boston have been stiffening. White cedar extras are still held at $4.50, but quotations on clears have been advanced to $4.25. Red cedars at Boston are bringing $4.18 for very good stocks. Lath are strong at $5 for 1⅝ in. and $4.25 for 1½ in.

Great Britain

The quantity of wood going into consumption in Great Britain during the past fortnight was considerably reduced by the new conditions brought about by the government orders regarding the timber trade, and also by very severe weather which hindered shipments. The submarine menace is also reducing the volume of arrivals for the time being, but it is expected that the worst of this menace will be past in a short time and that the risk of transit will be much reduced, when the regular shipping season is again in full swing. It is reported that stocks in Great Britain are sufficient, with careful handling, to satisfy all moderate requirements. Deliveries at London docks for the week ending February 10th amounted to 2,173 loads, as compared with 3,851 loads during the corresponding week of 1916.

The trade at Liverpool is taking the situation created by the government orders, in a philosophical manner, waiting patiently for the "Further regulations" that are to be issued by the War Office after consultation with The Timber Trades Federation. The government regulations have, for the time being, done away with c.i.f. transactions, and spot trade is limited to government, or national requirements The demand therefore, at present, is practically nil. Consumption, however, is well maintained out of stocks already in consumers' hands. The restriction upon softwood selling has had a beneficial effect upon the hardwood branch of the trade. Several consumers have placed fair-sized orders, in the fear that similar action may be taken regarding hardwood, of which stocks in the United Kingdom are very limited. There is no forward business in hardwoods, whatever. The great obstacle to forward business is that freight is unobtainable. Spot prices for hardwoods are steadily moving upwards and merchants are more than ever inclined to hold their remaining stocks. At Manchester, enquiries are confined entirely to munition work and even these are small. Prices of softwood are unchanged, but hardwoods continue to advance.

At Glasgow, the softwood trade has practically come to an end for the time being, pending further information regarding the government regulations. The term "softwoods" is so vague that it leaves everyone in doubt as to what it may or may not include. The general tendency is to avoid transactions in all woods which might possibly come under this designation. A few small transactions in pine and spruce deals have been carried through, but only in cases where it could be clearly shown that the goods were required urgently for purposes of national importance, certificates being granted to this effect.

United States

The lumber trade in the United States continues to show much activity, in spite of the serious international situation. Compared with the trade of a year ago, the volume of business to-day shows an increase. Speculative buying is not in evidence to any extent, most of the orders being for immediate requirements. This is partly the result of diffidence on the part of purchasers to place orders when delivery cannot be promised at any definite date and also a result of many purchasers having already bought well ahead. The general manufacturing situation is encouraging. Retailers report an active demand, though not so great as that of the manufacturers. The United States Government has been appearing on the market as a purchaser of munitions, lending considerable additional strength to trade. The shipbuilding industry is experiencing quite a boom and the trade in lumber for vessel construction is active. The export business is limited only by the amount of tonnage available.

There is nothing in the way of improvement to report in connection with the car shortage and embargo situation. Conditions are, in fact, more serious than ever before, so far as the lumberman is con-

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

cerned. Eastern railroads are expecting that when weather conditions improve the embargoes will be lifted. In practically all parts of the country shipments have been less than production recently and orders booked have been in excess of shipments. The railroad trouble is caused as much by lack of motive power as by lack of freight cars, and it is hoped that mild weather will improve the situation by making a much smaller demand upon the motive power. Manufacturers who consume lumber as a raw material are finding trouble on account of their inability to make satisfactory deliveries. Furniture manufacturers, for instance, have heavy orders on file, and their warehouses are filled with furniture waiting shipment. Naturally they are commencing to cut down their purchases of lumber. The export situation is partly responsible for the car shortage.

Yellow pine production continues below normal, in spite of more favorable weather conditions, and shipments are about the same as they have been for some weeks past, namely, slightly below production. The demand continues good for practically all items and prices are firm. Some large manufacturers are asking 50c to $1 more for all items. Southern pine manufacturers have orders on their books for greater amounts of lumber than ever before, and almost double the amount at this time last year. The demand for white pine is good and stocks are growing scarcer. Inland Empire mills have not been producing much during the winter months. Prices are firm. Retailers are showing an inclination to lay in stocks of this kind. The demand for spruce in the north Atlantic States has been improving steadily and prices are very firm. The demand for aeroplane stock, both on the west and east coasts is strong. Mills of the West Coast Lumbermen's Association have orders on their books for about four times as much stock as they had a year ago. The production is about 12 per cent. below normal and orders received are about 3½ per cent. below actual production, but more than 14 per cent. above shipments.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St John Conditions All Encouraging

St. John, N.B., March 6th (Special to the Canada Lumberman):—Practically no change has taken place in the lumber situation at the Port of St. John during the last two weeks. Shipping of lumber to the European market is in no way abating, and will no doubt continue at the present rate until the close of the winter port season. In a few more weeks the mill wharves will be cleared entirely of deals, boards, etc., and when the mills start it will be with wharves and yards completely bare of spruce. A small amount of pine will be left and that only because of shortage of space to the West Indies, and car shortage to the United States. I do not know of one mill on the river at St. John where stocks are not sold, and practically all shipped out. These mills have also practically all sold their cut of deals for the coming season. Prices remain at the same pitch as far as deals are concerned, but since the new embargo has been placed by Great Britain on all deal, boards, and planks, from Canada and other countries, buyers have been refusing contracts ahead for any further quantities until they are in a position to know what the British Government mean to do. If shipments are to cease entirely, it will no doubt be severely felt, but if the government keep on buying at the rate they have during the past season, it will not be so severely felt at St. John, as nearly all the shipments going from here during the past twelve months were on Admiralty orders. The American market is still growing firmer, with the Boston base at $34, the highest ever attained. Narrow plank of any kind, viz., 2 x 4-5-6 in., is selling at $29 at Boston; 2 x 8 in. at $34, and 2 x 10 in. at $36. Merchantable spruce boards are completely sold out at St. John, and the $25 per M. price put into effect at Boston recently will have no effect.

Laths are firmer and 1⅝ inch are worth $3.25 at mills at St. John, with 1⅜ inch at $3.00 for the season's cuts, contracted ahead.

At the present moment, the spruce market looks bright, with no cloud in the sky, and it is our hope that no cessation in the upward trend of prices will occur for 1917. All the high prices will be needed, as logs are surely costing more than a year ago. Logging is going steadily on under hard conditions, as snow is extremely deep and steadily falling. In fact, during the last two weeks over 12 inches has fallen over the province. At the present moment it looks like a late break up, but if warm weather should come quickly the snow and ice would fast disappear. It is to be hoped that sufficient logs will be delivered to streams and drives to mills at St. John to keep them busy all the coming year.

Montreal Markets Restricted by Embargoes

Montreal, March 10th (Special to the Canada Lumberman):—The position is still unsettled. The embargoes, combined with abnormal weather conditions, make it increasingly difficult to secure supplies, with the result that prices have advanced almost all along the line. As one lumberman put it: "There is no standard of values; it depends largely upon whether your customer requires immediate delivery, and whether you can supply his wants. In some instances, prices, within reason, does not seem to matter very much. The important point is, whether a lumber firm can give quick delivery. I do not recollect in a long experience such a position. Some of the mills, too, are quoting the widest prices, and with transportation facilities tied up, it is pretty difficult for us to make firm quotations."

There is no lack of orders, but with the embargoes on all materials except those for munition purposes, it is practically impossible to fill these orders, and business is naturally restricted. For the moment, the embargoes are the vital factors in the situation, both as regards local trade and the shipments to the United States. Wholesalers declare that market conditions are more or less of a puzzle, and that it is largely guesswork as to which way prices will tend. It may be that the lessened exports will offset the smaller cut, and thus keep prices at their present level or even exercise a downward influence, but much will depend upon Canadian requirements, particularly in the matter of shell box lumber.

The building permits for last month show a large gain over those of February, 1916, being $402,565, an increase of $336,650; the total for the year is $652,460, an increase of $412,385, Although the figures look encouraging, the building trade is practically at a standstill owing to the transportation difficulties.

The British Government's import prohibitions published has clarified the export position. Exporters recognize that the season will be one of exceptional difficulty, and that no shipments will be permitted except for munition purposes. This will probably mean a substantial decline in exports. At the present time the steamship companies state that they are not in a position to book space.

The pulp and paper markets continue firm. There is comparatively little stock of sulphite pulp on the docks at United States ports, and the arrivals from Europe have shown a decreasing tendency. The outlook is stated to be in the direction of higher prices, the market being controlled to a large extent by the pulpwood situation. There is a shortage of this raw material, and American mills will have to pay enhanced values for the available supply. Ground-wood is strong, and contracts have been made on the basis of $50 per ton.

Dominion Government Buying B. C. Lumber

Vancouver, March 5.—(Special to the Canada Lumberman.)—An Ottawa Government representative is out here waiting for specifications for about 3,000,000 feet of boat-building material, which the government requires immediately. It is understood that the government has completed arrangements for the car supply to handle the shipment of this stock.

Further reports state that a rush order for 100 carloads of lumber approximating 2,000,000 feet has been received by British Columbia mills from the Canadian Government, and that the order calls for shipment within ten days. The Cameron Lumber Company, Victoria, will furnish about ten carloads and the balance of the order is distributed among all the coast mills capable of turning out a few carloads promptly. It is generally understood that this order is in connection with the boat-building requirements mentioned above. It is also expected that the Canadian Government will be requiring even larger quantities from British Columbia mills in the very near future.

Steps looking to the speedy construction of a large number of wooden ships of from 3,000 to 3,600 tons register, in American yards on the Atlantic and Gulf Coast to aid American industry in meeting the international emergency, have been taken by the United States Federal Shipping Board and the chief builders of such craft. Tentative estimates before the board show that under the programme a 3,600-ton wooden ship can be built in from four to five months, and that the yards available for this class of work could construct up to 1,000 such craft within a comparatively short time in case of emergency.

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Send for catalogues of any or all of these machines.

Dunbar Engine & Foundry Co.
WOODSTOCK, N.B.

Industry's Problem—The Man and the Job

How Can the Workman's Thought be Diverted from the Reward to the Task and His Ideal of Labor Advanced?

By A. M. Johnston*

TONS of literature have been written and printed relating more or less remotely to the Man and the Job, most of it entirely superficial and treating of detached symptoms rather than attacking the root of the disease itself. Most of the writers on this subject have been satisfied to confine themselves to the purely inspirational, without following the rules laid down by Locke, which would enable them to ascertain "where the thing bottoms." It is this lack of foundation which has made the superstructure built by these writers so shaky and unsubstantial. It is evident to the least discerning that we cannot treat smallpox successfully by salving the postule. The difficulties which confront us on every hand when attempting to adjust the man to his job satisfactorily have their roots deep down in human nature, and we will never arrive at a satisfactory solution of the problem until we examine and analyze the root from which it springs.

There have been many and varied attempts—by increasing wages, establishing bonus systems, adopting profit-sharing schemes, etc.—to overcome the difficulties which every employer has experienced, but so far the most satisfactory of these attempts have been but temporarily and partially successful. The vast majority of these schemes have been abortive, and calculated to do more harm than good. I believe that the reason for this lies in the fact that the authors of these schemes have not properly sensed the cravings of the human heart for happiness, and that it demands, not so much an accomplishment as an aim towards which it may be constantly striving. Students of human nature are well acquainted with the fact that it is not what we have that we want, but always something which we have not. Having once obtained what we want we desire it no longer. In order to insure happiness, which is the ideal condition under which men can work, the desire must be kept alive. It is, therefore, not a fixed object which should be held before men's eyes, but one which is constantly moving—to which they never quite attain, but toward which they are constantly striving. No man is quite as unhappy as he who feels that he has accomplished his life's work and, like Alexander the Great, sighs for new worlds to conquer. A great deal has been said and written about the amount of labor accomplished and the long hours served by the owner of a business as compared with the labor done and the hours put in by his employees, which comparisons are always much in favor of the employer. The reason for this is, it seems to me, very evident. The employer is striving towards an unfixed ideal. As he does his work from day to day a broader and broader horizon opens up before him and an opportunity for greater accomplishment is developed for the future. On the other hand, the employee's reward is fixed, and he can only hope to increase it in a comparatively slight degree. This statement does not refer, of course, to the employee with exceptional advantages, but refers to the great mass of men who are compelled to work with their hands for a living. The tendency of this condition of things is to shift the attention entirely from the work and fix it upon the reward, and the truth of this becomes more and more evident when we consider the fact that the horizon of the average employee is circumscribed, and it is next to impossible for him to view his work in relation to the work of other men. In this way the wage received is unduly emphasized, and we have, as at present, a vast mass of men with their attention entirely fixed upon their pay in money and almost entirely removed from their task.

The Workingman's Troubles.

If we could put ourselves in the place of the average man—sympathize with his troubles, understand his problems, and enter into his difficulties, his struggles, and his trials—we would be able more vividly to sense the reason for his growing discontent. We would then be able to appreciate why he has no ideals in connection with his work. And why should he have any ideals which belong in any way to his daily task? It is a task and nothing more, and the blowing of the whistle at night is its welcome ending. So long as present conditions continue we cannot hope or ask for any ambition on the part of the average employee which touches his work in any way. Neither can we demand of him any more effort than he is compelled to give for the wage he receives. About the only hope he has in this respect is to procure another job with some other concern where the general wage rate is higher. Like many another man in the history of the world, he is a victim of the conditions which surround him—hopelessly and helplessly bound to the wheels of custom. The student of economic conditions must see that this man is going to demand more and more of the rewards of life as the years pass by. To dream that he will ever be content with conditions as they are is an infatuation of which too many employers are at present possessed. From the dawn of history the human race has constantly been in a condition of flux, the lower stratum constantly striving upwards and as constantly bettering its condition against the protests of those who, through self-interest or ignorance, believed that God had made men unequal for His own good purpose.

To the intelligent student of history it is evident that economic changes are not brought about in a single night; they are only accomplished by time and through blood and sweat and tears. There s a certain class of men who desire to remodel the world with a stroke of the pen, but such men are entirely ignorant of the forces which control the actions of the human race. They are idealists who believe that because a thing should be so it is so. They have their place in the economy of nature, and their office is to point us to the way we should go, but the great mistake they make is to demand that we should go faster than we are really capable of moving. They are the prophets of unrest, and form the yeast which keeps humanity in a constant state of ferment. That we are tending towards true socialism is evident to every thinking man, but it is not the socialism of the socialist. To those who exclaim against the present unrest I would say that there is no more unrest in the world to-day than there has always been. The unrest which we witness to-day is the working of the restless and striving forces of the human heart constantly struggling toward happiness. It is the practical working of the principle outlined above which constantly draws men forward by dangling before their eyes an object which as constantly recedes, and a practical application of this principle will, in the end, solve our wage problems.

An Expanding Horizon Required.

The conclusion to which we are irresistibly led is that the employee must have some further interest in his work than that which is bound up in the few dollars which he receives for his daily labor. His economic horizon must be one which constantly expands as he advances. Just what form this will take depends entirely upon the future, and will be controlled by conditions as they then exist. Employers should keep constantly before their eyes the fact that it is not the prize which makes men happy, but the running of the race. If the deer did not run we would find no sport in hunting. If it were not for the chances he takes the gambler would not find so many attractive features in his occupation. It has been pointed out that business is a game, and it follows that the way to secure the interest and loyalty of employees is to let them take an active part in the sport. The business man is willing to do more labor and put in more hours than his employees because he is playing the game and his interest is constantly stimulated. To secure the same interest and loyalty to the business on the part of his employees he must take them into the game with him. It is not my purpose in this paper to point out methods, but simply to emphasize fundamentals. Under present conditions I cannot see that it is feasible to give employees such an interest in the business as will stimulate their interest and secure their loyalty. This must wait on economic changes which, it seems to me, are rapidly approaching. The stand taken in the past few years by the administrations both in the Dominion and the States against combinations in business have retarded the economic progress of events whose logical results would have been an opportunity for putting the principles outlined in this paper into force. The conditions necessary for their successful application must be such as to admit of business combinations which, it seems to me, the progress of events necessarily demand. So long as we have numberless small employers, each playing his own little game without regard to his relations with other employers, we will be very far from those conditions which make the application of these principles possible. In any event, the economic changes desired cannot be brought about by courts or legislatures. They cannot spring, like Minerva, full armed, from the head of Jove.

"Heaven is not reached by a single bound,
But we build the ladder by which we rise.
From the lowly earth to the vaulted skies
And mount to its summit round by round."

*Manager of Publicity Department of the Stearns Salt & Lumber Co., Ludington, Mich.

James W. Sewall Has Many Cruisers at Work

The James W. Sewall office of Old Town, Maine, reports exceptional activity in timber lands, especially in pulpwood circles. This timber cruising concern has crews out on over 500,000 acres of land, located in Maine, New Brunswick, Nova Scotia and Quebec. Activity so pronounced is the exception in winter, and indicates the interest being felt in spruce lands.

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CANADA has another big war opportunity: Great Britain needs more wood pulp. Install a small Soda Pulp Plant and Supply this need by converting your Slats, Tops, Bottoms and waste wood around the Saw Mill into pulp. We can dispose of any amount. Previous sources of supply in Sweden, etc., have recently been withdrawn and Canada now has a free field in Great Britain to market unlimited quantities of wood pulp. We can arrange contracts for long periods.

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Uniform Credits Assist the Retailers

Taking a Note and Insisting on Property Statements Reduce Many of the Troubles of the Trade

By W. E. Moore*

The subject of credits is a big one—one that has caused most of us a great deal of worry, either on account of having granted too much credit or having ourselves been granted too much credit, or both, at one time or another. I, myself, have for several years been endeavoring to find out the safest manner in which to sell lumber on time, as it seems necessary, for various reasons, that we sell our lumber to customers to be paid for at some future date.

I have been experimenting along certain lines, some of which have been highly satisfactory and others which have been almost disastrous to my business at certain points, on account of our competitor not caring to try to handle his credits in the same manner. I might say, however, that some of our competitors have fallen in line with many of our ideas, and have found them very beneficial.

I remember about five years ago making a statement at a meeting of retail lumbermen that we were going to insist on our agents making settlement for at least 30 per cent. of their time sales by taking a note for the same at time the lumber left the yard, and urged the other dealers to adopt the same policy, as it would then be much easier to educate the trade to settle for their purchases in this manner. Many objected to the policy for several reasons.

We have continued this policy, and find it works out very satisfactory, and gives us interest on our money, which our customers are using, as, after all, selling a customer lumber on time is nothing more than loaning him the equivalent of money ,and why should we not be paid for the accommodation? How ridiculous it would be for one of these customers that we sell lumber on time to to go into a bank to borrow $100 and expect to get it without signing a note and paying interest for the use of it.

Notes Save Many Disputes

Taking a note for an account on the day of sale has done more than simply causing a customer to pay for his accommodation; it has saved many arguments with customers as to the correctness of the amount he is owing. Many an open account I have gone over, item by item, with a customer to endeavor to satisfy him of its correctness, and many times I have had hard work to convince him that he got certain items. It had been so long since he got them that I think he was honest in stating that he could not remember getting them.

Then, again, we find very little trouble when filing claims against an estate if we have a note to support our claim, and interest is collectable against the estate at the rate shown on the note, while the interest is not collectable against the estate on an open account.

I have in mind a case where we filed a claim against an estate, only a couple of months ago, part of which claim was an open account and part a note. We received from the administrator of the estate only last Saturday a letter stating that one of the heirs had filed a protest against the payment of the open account on the ground that his deceased father never purchased anything on time without giving a note to cover such an account on the day of purchase.

I do not anticipate but what we will be able to prove that our open account has not been paid, but it will cause us some annoyance. The note which his father had given and was filed as a part of the claim was not questioned.

We did not adopt this policy of taking notes at the time of the sale without it causing us the loss of some business, as some customers refused to give a note when they bought the lumber, stating that they could get all the lumber they wanted over at the other yard without giving a note, and some of them did, but I am pleased to know that some of the lumber dealers have adopted this same policy of taking notes for a time sale on day the lumber is delivered. I am sure, however, that many disputes with a customer have been avoided by so doing.

Getting a Property Statement

About five years ago I was in a lumberman's office when the subject of credits and collections came up in our conversation, and he advised me that his agents took a property statement from all customers to whom they sold lumber on time, and that many times his agents had avoided a poor or worthless account by having the prospective customer's financial statement before them. I said to him, "Do you really get a property statement from your customers?" and he said, "We do or we don't sell our lumber on time."

I had made an attempt several times before to adopt the policy of taking property statements, but with little success, but after this man showed me hundreds of such statements in his office, which his agents had sent in, I was convinced that it could be done, and we adopted the policy, and I am pleased to say that the taking of property statements from prospective customers has saved us many a dollar in worthless accounts.

We did not adopt this policy, either, without it causing us the loss of some business, as many at first refused to give us such a statement, saying that they could get all the lumber they wanted at some other yard without telling all about their private affairs, and many of them got their lumber at the other yard, and to my personal knowledge many of them owe the other yard for it yet, and the other yard has not even got a note covering the purchase in some cases.

Our agents are always very prompt in one thing, and that is to advise us about the loss of a "good" customer because they had asked him for a property statement. I felt very much discouraged at first to see so many "good customers" going to the other yard, but I consoled myself with the thought that what another lumberman could get his agents to do we could get our agents to do.

I began to have searches made of this and that good customer's land which our agents advised us we were losing on account of asking them to give us a statement of their financial condition, and nine out of ten of these searches, when they came to our desk, showed their land to be so heavily encumbered that we were very thankful indeed that they got their lumber at the other yard, where they did not have to tell all about their private affairs.

Then I began to educate our agents how to approach a man for a property statement. I furnished them with a number of reasons and arguments to use in talking to a prospective customer, why it was to his advantage to give us a property statement. We soon found that the really good customers and the well-to-do man had no objection at all to give us such a statement, if properly approached, and it has simmered down to watching those more particularly who object to giving us a statement of this nature. It is all a matter of education, and it is much easier for us as a body of retail lumber dealers to educate our trade than for a few dealers to do it.

The banks have no trouble getting a financial statement from a customer, one each year, or oftener if they ask for it. Why? Simply because all banks demand it before they even consider making a man a loan. Then, why do not the lumbermen adopt the same policy? Surely it is not because we are such small fry in the business world.

I am advised, on the best of authority, that there are 1,377 retail lumber yards in the Provinces of Manitoba, Saskatchewan, and Alberta. In normal times we could conservatively estimate that these 1,377 yards do an annual business of between $24,000,000 and $27,000,00. How much of this vast business is done on credit? Eighty per cent.? I think fully that much. That means that the retail lumber dealers in these three prairie provinces are putting into the hands of 1,377 men (mostly men employed on a monthly salary) to loan $19,000,000 to $22,000,000 for them each year.

Isn't it reasonable for us to create some safer system of granting this vast amount of credit? We are certainly doing it in a slipshod manner at the present time.

What is making it possible for the countries at war to carry on this gigantic struggle? It is efficiency. Let us, therefore, learn a lesson from this war, and make ourselves more efficient in granting credits.

In conclusion, I wish to sum up these remarks by saying:

"Let us, as retail lumbermen, adopt a uniform system or policy of granting credits, covering, among other things, the taking of property statements from all customers and taking notes at the time of delivery."

*Address delivered at annual meeting of Western Retail Lumbermen's Association at Winnipeg.

Want to Start a Retail Service Department

St. Stephen, N.B.

Editor Canada Lumberman:

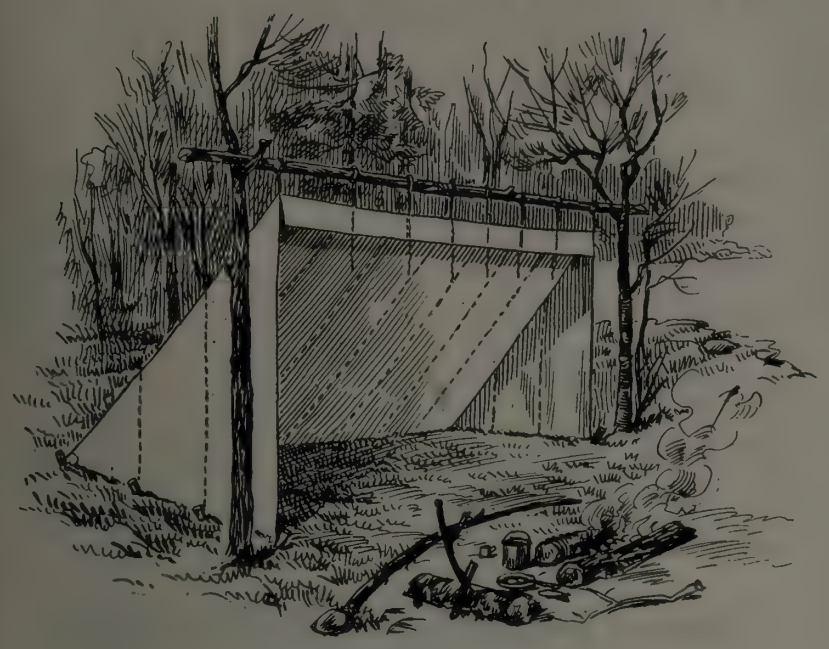
In the Canada Lumberman of February 1 we noticed an article on "Service to the Consumer," in which you mention several things that struck us as being valuable in a retailer's display room.

Can you favor us by giving us a list of plan books and pictures, reference books on modern, up-to-date buildings, etc.; also where can we procure models of barns, etc.? We want to start a service department as you suggest.

HALEY & SON.

Editor's Note.—The information requested has been sent to Messrs. Haley & Son. Any other enterprising retailers who desire assistance of this nature will be similarly accommodated.

Tents of Every Description



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for Saw Mill work. They are made in an extensive plant built and equipped for the purpose with all modern appliances.

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Native Hardwoods
Tropical Woods
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WE have pleasure in announcing to the trade that we have now acquired the business and goodwill of the Dominion Mahogany & Veneer Co., Limited.

In connection with this new branch of our business we are carrying the following stocks in Toronto:

In Lumber Yard

Mahogany Lumber on the way in

2,000′ 4″ 1st and 2nd Mexican Mahogany
1,500′ 3″ " " "
1,800′ 2″ " " "
1,800′ 1¼″ " " "
10,000′ 1¼″ No. 1 Com. Mexican Mahogany
18,000′ 1″ 1st and 2nd Mex. Mahogany (figured)

Good Mexican Shorts

4,300′ 2″
3,800′ 1½″
14,000′ 1″

2,000′ 3″ 1st and 2nd African Mahogany
1,200′ 2″ 1st and 2nd African Mahogany
2,000′ 1¼″ 1st and 2nd African Mahogany
3,000′ ⅝″ 1st and 2nd African Mahogany
10,000′ 1″ Sound Wormy Mahogany

1st Quality Mexican

18,000′ 1″

10,000′ 1″ 1st and 2nds Philippine Mahogany
12,000′ 1″ 1st quality Mexican Mahogany (special grade)

Also 1″ to 2″ Walnut
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Sliced Veneers	*Sawn Veneers*	*Rotary Veneers*
MAHOGANY	MAHOGANY	ASH
GUM, FIGURED	QTD. OAK	BIRCH
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Buffalo Hardwood Prices Advancing

Buffalo, N.Y., March 8.—(Special to the Canada Lumberman.)—Business in the hardwood line is in a peculiar condition in the Buffalo market, as well as all other markets in the United States, at the present time. Stocks in the Buffalo yards are quite low, as we have been shipping out considerable lumber since the first of the year, and lumber has been arriving rather slowly on account of embargoes and shortage of cars. Prices have advanced some on this account.

A great deal of stock is in transit, which will probably affect the market prices and conditions when it arrives at destination. The Buffalo trade are all looking forward to a fairly good business this year in the hardwood line.

White Birch Paving Blocks Make a Good Showing

Reports on the 1915 and 1916 inspections of the experimental wood block pavements in Minneapolis credited white birch with a remarkable showing. After ten years of service it was found to be in fully as good condition as longleaf pine. A report received by the Forest Products Laboratory at Madison, Wis., from a company which laid both white birch and longleaf pine blocks in a factory floor in 1909 stated that the white birch was much more satisfactory than the pine. It seems likely that if white birch can be delivered to treating plants in such condition that there will be only a small loss during the manufacture, it may find a wide use as paving block material. Efforts are now being made to determine whether this can be satisfactorily accomplished; and the laboratory is also trying to locate and secure reports on other white birch pavements.

National Wholesalers Next Week at Pittsburg

Plans are practically completed for the programme for the twenty-fifth annual meeting and banquet of the National Wholesale Lumber Dealers' Association, which is to be held at the William Penn Hotel, Pittsburg, Pa., on March 21 and 22. The demoralized conditions of the lumber trade to-day on account of lack of shipping facilities is one of the paramount issues in the mind of the trade, and it is hoped that at this conference a way may be found to co-operate with the railroads in securing better service for the movement of lumber and for a more thorough co-operation of lumber organizations from a traffic point of view.

Canadian Northern Expecting Greater Share of Traffic

The Canadian Northern Railway are expecting that a recent order-in-council passed at Ottawa will come into effect in the near future, declaring it a railway "for the benefit of Canada," and that they will then secure a 1 cent per 100 pounds switching rate from the C.P.R., this being the standard rate laid down by the railway commission for roads within its jurisdiction. The Canadian Northern are also counting upon the privilege of having the C.P.R. handle Canadian Northern Railway cars to competing points for similar reasons. They expect that these changes will enable them to obtain a greater share of the lumber traffic from British Columbia to Eastern Canada.

Julius Siedal Lumber Company's Fine Calendar

The Julius Seidel Lumber Company, St. Louis, Mo., have issued a unique calendar for the twelve months from March, 1917, to February, 1918. A full page is devoted to each month, the calendar figures being enclosed in a square at the bottom of a large-sized illustration, either of their woods or of some finished lumber product, all of the illustrations having a special appeal to those who are interested in the lumber business. Some of the monthly pages have illustrations inset, showing the plant and the equipment of the company. The pages are printed in attractive colors, and altogether the calendar is one that is sure to be welcomed by those who receive it.

The province of Ontario has recently adopted a new proceeding in connection with the sale of pulpwood. All agreements now made with the purchasers contain a clause to the effect that the agreement can be cancelled by the government in ten days. The object of this is to enable the province to put an end to the agreement in case it should develop that the purchaser has not sufficient financial backing.

Finding that shortage of snow hampered the movement of logs on his limits near Port Hill, Idaho, J. S. Deschamps has made arrangements for the construction of a flume. It will be two miles in length and will carry the logs into the Kootenay River, whence they will be towed to the Deschamps mill at Nelson.

WAR LOAN

DOMINION OF CANADA

Issue of $150,000,000 5% Bonds Maturing 1st March, 1937

Payable at par at Ottawa, Halifax, St John, Charlottetown, Montreal, Toronto, Winnipeg, Regina, Calgary, Victoria, and at the Agency of the Bank of Montreal, New York City.

INTEREST PAYABLE HALF-YEARLY, 1st MARCH, 1st SEPTEMBER.

PRINCIPAL AND INTEREST PAYABLE IN GOLD.

ISSUE PRICE 96.

A FULL HALF-YEAR'S INTEREST WILL BE PAID ON 1st SEPTEMBER, 1917.

THE PROCEEDS OF THE LOAN WILL BE USED FOR WAR PURPOSES ONLY.

THE MINISTER OF FINANCE offers herewith, on behalf of the Government, the above-named Bonds for Subscription at 96, payable as follows:—

10 per cent on application;
30 " 16th April, 1917;
30 " 15th May, 1917;
26 " 15th June, 1917.

The total allotment of bonds of this issue will be limited to one hundred and fifty million dollars, exclusive of the amount (if any) paid for by the surrender of bonds as the equivalent of cash under the terms of the War Loan prospectus of 22nd November, 1915.

The instalments may be paid in full on the 16th day of April, 1917, or on any instalment due date thereafter, under discount at the rate of four per cent per annum. All payments are to be made to a chartered bank for the credit of the Minister of Finance. Failure to pay any instalment when due will render previous payments liable to forfeiture and the allotment to cancellation.

Subscriptions, accompanied by a deposit of ten per cent of the amount subscribed, must be forwarded through the medium of a chartered bank. Any branch in Canada of any chartered bank will receive subscriptions and issue provisional receipts.

This loan is authorized under Act of the Parliament of Canada, and both principal and interest will be a charge upon the Consolidated Revenue Fund.

Forms of application may be obtained from any branch in Canada of any chartered bank and at the office of any Assistant Receiver General in Canada.

Subscriptions must be for even hundreds of dollars.

In case of partial allotments the surplus deposit will be applied towards payment of the amount due on the April instalment.

Scrip certificates, non-negotiable or payable to bearer in accordance with the choice of the applicant for registered or bearer bonds, will be issued, after allotment, in exchange for the provisional receipts.

When the scrip certificates have been paid in full and payment endorsed thereon by the bank receiving the money, they may be exchanged for bonds, when prepared, with coupons attached, payable to bearer or registered as to principal, or for fully registered bonds, when prepared, without coupons, in accordance with the application.

Delivery of scrip certificates and of bonds will be made through the chartered banks.

The issue will be exempt from taxes—including any income tax—imposed in pursuance of legislation enacted by the Parliament of Canada.

The bonds with coupons will be issued in denominations of $100, $500, $1,000. Fully registered bonds without coupons will be issued in denominations of $1,000, $5,000 or any authorized multiple of $5,000.

The bonds will be paid at maturity at par at the office of the Minister of Finance and Receiver General at Ottawa, or at the office of the Assistant Receiver General at Halifax, St. John, Charlottetown, Montreal, Toronto, Winnipeg, Regina, Calgary or Victoria, or at the Agency of the Bank of Montreal, New York City.

The interest on the fully registered bonds will be paid by cheque, which will be remitted by post. Interest on bonds with coupons will be paid on surrender of coupons. Both cheques and coupons, at the option of the holder, will be payable free of exchange at any branch in Canada of any chartered bank, or at the Agency of the Bank of Montreal, New York City.

Subject to the payment of twenty-five cents for each new bond issued, holders of fully registered bonds without coupons will have the right to convert into bonds of the denomination of $1,000 with coupons, and holders of bonds with coupons will have the right to convert into fully registered bonds of authorized denominations without coupons at any time on application to the Minister of Finance.

The books of the loan will be kept at the Department of Finance, Ottawa.

Application will be made in due course for the listing of the issue on the Montreal and Toronto Stock Exchanges.

Recognized bond and stock brokers having offices and carrying on business in Canada will be allowed a commission of three-eighths of one per cent on allotments made in respect of applications bearing their stamp, provided, however, that no commission will be allowed in respect of the amount of any allotment paid for by the surrender of bonds issued under the War Loan prospectus of 22nd November, 1915, or in respect of the amount of any allotment paid for by surrender of five per cent debenture stock maturing 1st October, 1919. No commission will be allowed in respect of applications on forms which have not been printed by the King's Printer.

SUBSCRIPTION LISTS WILL CLOSE ON OR BEFORE THE 23rd OF MARCH, 1917.

DEPARTMENT OF FINANCE, OTTAWA, March 12th, 1917.

THE EAGLE LUMBER CO. Limited
WHOLESALE LUMBER
SANS-DIEU-RIEN
MONTREAL, Canada
Head Office at Montreal.

SPRUCE
ROUGH or DRESSED

Saw Mills at
MONT LAURIER, QUE.
STE. MARGUERITE, QUE.

Dressing Mills at
ST. JEROME, QUE.

Herman H. Hettler Lumber Co.
Midland, Ontario
Manufacturers of
WHITE PINE and RED PINE
LUMBER and LATH
EXCELLENT PLANING MILL FACILITIES
Special Attention Given to Prompt Delivery

CEDAR
Shingles

Campbell, MacLaurin Lumber Co.
Limited
Board of Trade Building, MONTREAL

SPRUCE
AND
BIRCH
GOOD STOCKS PROMPT SHIPMENTS SATISFACTION
C. A. SPENCER, LIMITED
Wholesale Dealers in Rough and Dressed Lumber, Lath and Shingles
Offices—McGill Building, MONTREAL, Quebec

EDGINGS

Ontario

W. J. Trick & Co., Oshawa, Ont., manufacturers of interior fittings, recently suffered loss by fire, amounting to about $75,000.

The head office of the Port Arthur Pulp and Paper Company will be located at Port Arthur, Ont., after the middle of March.

A by-law has been passed by the ratepayers of Midland, Ont., granting a bonus of $25,000 to aid a shipbuilding plant which is to be erected at that place.

An addition to their factory is being erected by the Keenan Woodenware Manufacturing Company, Owen Sound, Ont. The building will be three storeys, 60 x 100 feet.

J. B. Watson proposes to erect a furniture factory, at a cost of about $50,000, at Kincardine, Ont. A by-law will be submitted to the ratepayers to secure their approval for granting a free site.

The National Piano Company, Ltd., has been incorporated, with capital of $1,000,000, and head office at 226 Yonge Street, Toronto. The temporary office is care of Cawthra Mulock Company, 12 King Street East.

The Canada Furniture Manufacturers, Woodstock, Ont., will soon have their plant at Wingham, Ont., in operation. Employment will be given to about 30 men at first. A considerable quantity of new equipment has been installed.

The white pine berth 1F, in the Mississaga Reserve was sold recently by the Ontario Government to Mr. Robert McKay, who was the highest tenderer, the price paid being $7.50 per thousand feet, in addition to the dues. It is understood that Mr. McKay was representing other parties in making this purchase.

Newsprint manufacturers in Ontario are of the opinion that a statement recently made by Sir Adam Beck in an address before the Hydro-Electric Union of Municipalities means that a large newsprint mill is likely to be established in connection with the Hydro-Electric Power Commission of Ontario, some time in the near future.

The Kingsdale Box Company, Ltd., has been incorporated, with head office at Kingsdale, Ont., and capital stock of $60,000, to carry on business as timber merchants, sawmill proprietors, and to take over as a going concern the business of lumber and woodenware of Messrs. Ross & Branscombe, at Kingsdale, Willowdale, P.O., Ont. Those interested are W. P. Gillespie, B. Ross, H. K. Bowes, J. H. Noble, and J. D. Collie.

Fire destroyed the planing mill of the Wilson Brothers, Limited, Collingwood, Ont., on March 6, entailing a loss of over $100,000, largely covered by insurance. Two residences also fell a prey to the flames. The Wilson Company have been one of the leading industries of Collingwood for nearly thirty years, and have sold their products all over Canada. They had all the orders on hand they could handle. Fifty men are thrown out of employment.

A new mill is being erected by Lauder, Spears & Howland, Toronto, in from Mowat, Ont., on the Canadian Northern Railway. The logs to be manufactured will come from new limits purchased in Blair and Mowat Townships. The William Hamilton Company, Ltd., Peterboro, Ont., are furnishing the machinery, consisting of the necessary log deck machinery, double-cutting steam tension band mill, horizontal resaw, edger, slasher, trimmer, and lath machinery, all of the most modern type. Power will be supplied by an 18 in. x 42 in. Goldie and McCulloch engine. Mr. Clarence Bullis is in charge of the erection of the mill. The company expect to commence sawing in June.

Eastern Canada

Atlantic Pulpwoods, Ltd., Montreal, P.Q., have obtained a charter.

Beauchemin & Nadeau, lumber merchants, Montreal, P.Q., have been registered.

A new pulp mill will be erected at Mont Laurier, P.Q., to cost $20,000, by La Cie Generale de Pulpe, Visitation Street, Montreal.

Emard & Co., shell box manufacturers, Montreal, P.Q., have been registered, A. Benoit and R. Emard being the proprietors. Their address is 1315 Papineau Avenue, Montreal.

The International Shipbuilding Corporation, Ltd., Montreal, P.Q., have been incorporated, with capital stock of $2,000,000. It is reported that the company will establish a plant at Rosebank, on the Miramichi River, New Brunswick. It is also reported that the company have obtained an option on a mill at that point.

Western Canada

The Canadian Cedar and Lumber Company, Ltd., Winnipeg, Man., have been incorporated.

The Capilano Timber Company, North Vancouver, B.C., have purchased 674 feet of water frontage at North Vancouver.

The Montrose Shingle Company, Ltd., has taken over the business of W. H. Wall & Sons, Vancouver, B.C. They will also carry on business as foresters, timber merchants, sawmill proprietors, and are given power to buy and

deal in sawlogs, timber, lumber, shingles, and wood of all kinds. The head office of the company is at Vancouver, B.C., and capital stock is $25,000.

A site has been secured for the erection of a shingle mill at Queensboro, B.C., by Mr. Blythe, care of secretary Board of Trade, New Westminster, B.C.

The Straits Lumber Company, of which Frank R. Pendleton, of Everet, Wash., is president, have bought the old Newcastle mill at Nanoose Bay, B.C. The capacity of the mill is 100,000 feet per day.

The sawmill of the Canadian Robert Dollar Company, Vancouver, B.C., will be in operation in May. The capacity of the plant will be 150,000 feet per day. The mill is designed to cut up to 120 feet.

The Craig & Taylor Lumber Company, Langley, B.C., have purchased timber limits, and will install a mill with a capacity of 60,000 feet per day, at Otter, on the line of the Great Northern Railway.

The Walsh-Day Lumber Company, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $25,000, to carry on business as manufacturers of lumber, timber, and shingles, and as lumber and timber merchants.

The Fort Steele Lumber Company, Ltd., has been incorporated, with head office at Fort Steele, B.C., and capital stock of $25,000, to carry on business as sawmill proprietors and to manufacture and deal in timber, lumber, railroad ties, etc.

The Sidney Mills, Ltd., has been incorporated, with head office at Sidney, B.C., and capital stock of $200,000, to carry on business as sawmill owners, loggers, timber and lumber merchants, and to manufacture and deal in timber and wood of all kinds.

The Eburne Clear Cedar Mills, Ltd., have been incorporated, with head office at Vancouver, B.C., and captal stock of $50,000, to take over the plant and business of the B. K. Shingle Company, Ltd. The new company will manufacture shingles, timber, and wood of all kinds.

W. S. Dwinell, Minneapolis, Minn., and George A. Bergstrom, of Everet, Wash., have purchased a site for a shingle mill at Eburne, B.C. Mr. Dwinell owns a considerable quantity of standing timber in British Columbia. They have not yet made plans for the erection of a mill.

The Regal Lumber Company, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $10,000, to carry on business as loggers, foresters, lumber and timber merchants, sawmill and planing mill proprietors and as manufacturers of and dealers in wood pulp.

The Salmon River Sawmill Company, Ltd., has been incorporated, with head office at Prince George, B.C., and capital stock of $50,000, to take over as a going concern the timber, lumbering, and milling business of the Salmon River Lumber Company, Salmon River, B.C., and to carry on a general lumbering business.

The Allen-Stoltz Lumber Company, Vancouver, B.C., have succeeded the Commercial Lumber and Shingle Company. The company will sell the output of the Stoltz Manufacturing Company. Mr. James M. Allen, formerly secretary of the British Columbia Shingle Association, is a member of the company. The Stoltz Manufacturing Company, Ruskin, B.C., operate 12 machines.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 16th day of April, 1917, for the purchase of license X830, to cut 8,727,000 feet of Douglas fir, cedar, hemlock, and balsam on an area adjoining Lot 1333, Upper Pitt River, New Westminster District. Three years will be allowed for the removal of the timber.

Sealed tenders are being received by the Minister of Lands for the Province of British Columbia until the 23rd day of March, 1917, for the purchase of license X871, to cut 4,600,000 feet of spruce, hemlock, and cedar on an area adjoining Lot 1550, situated on Masset Inlet, Queen Charlotte Islands District. Two years will be allowed for the removal of the timber.

John K. O'Brien, Ltd., has been incorporated, with head office at Vancouver, B.C., and capital stock of $25,000, to take over as a going concern the business now carried on at Carridan Bay, B.C., by John K. O'Brien, of Vancouver, B.C., and also to carry on business as loggers, lumber and timber merchants, sawmill and shingle mill proprietors, etc.

The Timberland Lumber Company, New Westminster, B.C., who have bought land for a new mill at Cloverdale, B.C., are building a thoroughly up-to-date heavy fir timber mill, and expect to be able to handle timber up to 48 x 48 inches—120 feet. The capacity will be about 125,000 feet in ten hours, and the plant will probably be in operation by the end of the present year. In connection with their booming ground they are arranging to give each log a separate pocket, so that a rush order for any length can be handled without extra sorting. The booming ground has a capacity of 7,000,000 feet of logs. A substantial export wharf will be constructed, and rail connection direct or indirect has been arranged with the Canadian Pacific, the Canadian Northern, Great Northern, Northern Pacific, and Milwaukee roads.

In addition to other wooden and steel vessels under construction at Vancouver and Victoria, the firm of Yarrows, Limited, Esquimalt, are building a shallow draught steel sternwheeler for use in India. The vessel is already in an advanced stage of construction and when completed, about April 1st, will be taken apart, packed in sections and shipped to Rangoon for river service. The boilers and machinery will be turned out by the parent firm on the Clyde.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
1 x 6 in. 10/16 ft. merchantable	29 M
1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable.	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

The McLennan Lumber Co.
LIMITED
Wholesale and Retail
21 Dorchester Street W. - MONTREAL, QUE.
Telephone Main 8656. Private exchange to all departments

H. BOURGOUIN
Dominion Express Bldg., 145 St. James St., Montreal
WHOLESALE LUMBER AND TIMBER
Dressed and Rough
White and Red Pine, Spruce, Hemlock, Banksian Pine, Birch, Maple, Dimension Cedar, B. C. Fir, Yellow Pine, Railway Ties, Fence Posts, etc.
Prompt shipment. Satisfactory stock. Good service Write for Prices.
A. F. B. AUSTIN, Manager

Your Blower System

If you contemplate installation of a new blower system or an extension of your present one, write us, as we have a unique proposition to offer. There is no heating, clogging or shaking with our system.

Prices on application

The Toronto Blower Co.
156 Duke St., Toronto

Here We Are Again

with the Genuine

Draw String Shoe Pack

Orders from lumbermen all over Canada for the Midland-Gendron Pack keep our plant going day and night. These packs are made of the best selected leather manufactured specially for this purpose.

THE P.T. GENDRON SHOE PACK CO. MIDLAND GENDRON MIDLAND ONT. CAN.

Our Catalogue will be sent on request.

P. T. Gendron Shoe Pack Co.

MIDLAND, ONTARIO

McLennan's Lath Mill and Bolter

Utilize your unsaleable lumber with a lath mill.

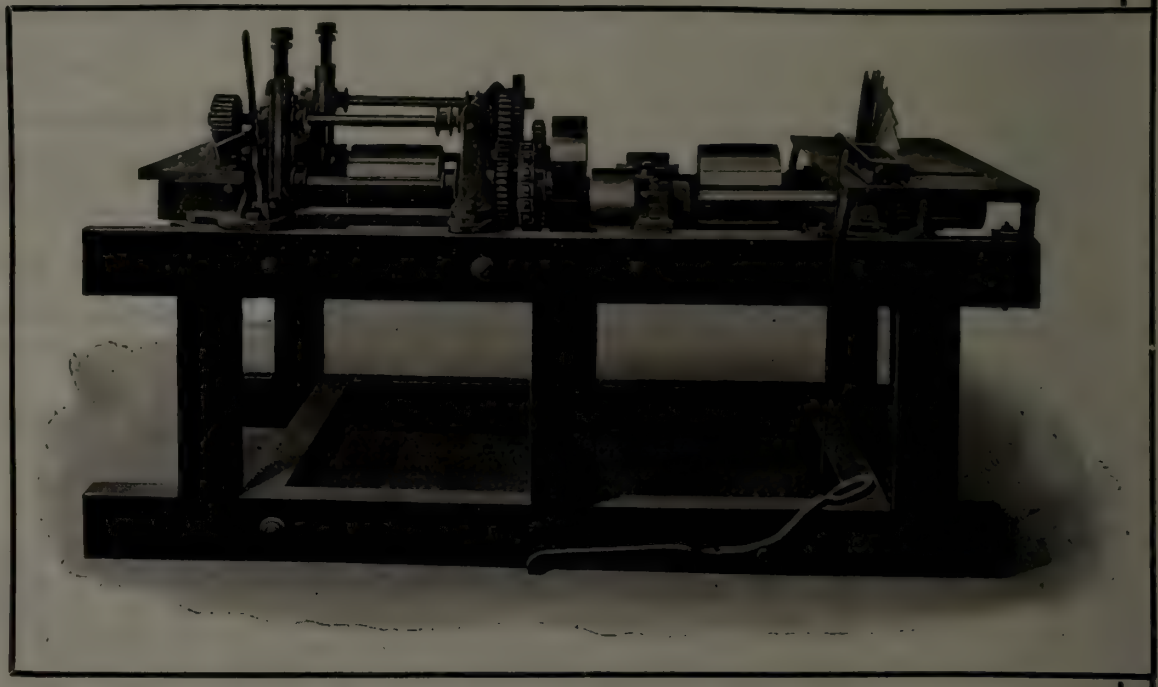
This lath mill and bolter is designed along simple lines with bolted wooden frame, making it inexpensive and substantial.

Capacity 45,000.

Specifications; Lath machine pulley 7 inches diameter x 9 inches face.

Floor space 7 feet 6 inches x 3 feet 6 inches.

We make gang edgers, shingle machines, sleeper machines and barkers, etc.



McLennan Foundry & Machine Works

CAMPBELLTON, N.B. Limited

The Only Loose Pulley

L. A. DeLaplante Limited

LUMBER

DOORS SASH AND INTERIOR TRIM

PRIVATE PHONE EXCHANGE MAIN ST.

East Toronto June 17/16

Chapman Double Ball bearing 1/16

Dear Sirs

in regard to double ball bearings supplied by you, we find those on line shaft giving entire satisfaction and find them quite a saving on power, as for the ball bearing loose pulley, they are decidedly the finest, and only satisfactory loose pulley we have ever had, no noise or scoring and consequently no loss of time, which so frequently occurs with the ordinary loose pulley, we have run the loose pulley on our big matcher for nearly two years and consider it a severe test and it runs as nice to day as the first day we used it can recommend your bearings and pulleys to any one in the manufacturing business especially planing mill work which we have proved.

Yours very truly
L A DeLaplante Lumber
per M. Costain Supt

Chapman Double Ball Bearings

have been installed in over 3000 factories of all classes during the past fifteen years, and the above letter is one of many of a similar import, bearing testimony to the efficiency, long life, and cleanliness of the bearing. Some of these have been compiled in a booklet, "Results", which we will be pleased to send on request.

Chapman Double Ball Bearing Co., Ltd.

337-351 Sorauren Avenue, TORONTO

Transmission Ball Bearing Co., Inc., 1050 Military Road, Buffalo, N. Y.

Bedford Ebony Axe

Hand-Made for Lumbermen

A nicety of balance, a perfection of tempering, and a thorough knowledge of the lumberman's requirements, combine to make the Ebony Axe an ideal tool for the woods.

This axe is a hand-made tool of the toughest steel. It will take and hold a keen cutting edge.

We have been established since 1895, and will be pleased to quote prices on axes, scythes, rakes, hoes, forks, saws, etc.

The Bedford Manufacturing Company

Bedford, Que.

TO INVESTORS

THOSE WHO, FROM TIME TO TIME, HAVE FUNDS REQUIRING INVESTMENT MAY PURCHASE AT PAR

DOMINION OF CANADA DEBENTURE STOCK

IN SUMS OF **$500** OR ANY MULTIPLE THEREOF.

Principal repayable 1st October, 1919.

Interest payable half-yearly, 1st April and 1st October by cheque (free of exchange at any chartered Bank in Canada) at the rate of five per cent per annum from the date of purchase.

Holders of this stock will have the privilege of surrendering at par and accrued interest, as the equivalent of cash, in payment of any allotment made under any future war loan issue in Canada other than an issue of Treasury Bills or other like short date security.

Proceeds of this stock are for war purposes only.

A commission of one-quarter of one per cent will be allowed to recognized bond and stock brokers on allotments made in respect of applications for this stock which bear their stamp.

For application forms apply to the Deputy Minister of Finance, Ottawa.

DEPARTMENT OF FINANCE, OTTAWA,
OCTOBER 7th, 1916.

DUNLOP

DUNLOP HOSE

SEAL OF QUALITY

RUBBER

Twenty-three Years' Experience

"Dunlop" Means Truly-Canadian

Dunlop Mill Fire Hose O.K'd by the Underwriters

Here is one of the greatest compliments ever paid to a manufacturer of Mill Fire Hose in Canada:

The Underwriters' Laboratories, Inc., Chicago, make it known that Dunlop are authorized to use the Underwriters' label of approval on **Dunlop Underwriters' Mill Fire Hose** (Cotton Rubber Lined).

You can understand the wonderful significance of this "O.K." to the Canadian manufacturer and mill man requiring fire hose.

To purchase Mill Fire Hose (Cotton Rubber Lined) without investigating the surpassing merits of Dunlop make — approved by the Underwriters — a verdict money cannot buy—is to deny yourself all that a Mill Fire Hose can possibly represent in efficiency because the great critics in effect say: "Dunlop represents Leadership."

Quality Perpetually Repeated---Dunlop Water Hose

In Water Hose, **"Hercules"** and **"Peerless"** take front rank because for years they have kept up a "repeat" on quality that even their best friends did not think possible in any brand of Hose. We recommend **"Hercules"** for extra heavy service.

"Made to Work, Not to Look at"---Dunlop Steam Hose

In all the provinces you will come across Dunlop Steam Hose "on the job." The requirements are what are usually styled "extra hazardous," but Dunlop **"Gibraltar"** and Dunlop **"Peerless"** Steam Hose are "made to work, not to look at."

If your plant is in need of Hose, it is not too late to learn wherein "Dunlop" excels.

Dunlop Tire & Rubber Goods Co., Limited

Head Office and Factories: Toronto.

Branches in the Leading Cities.

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

How Is *Your* Work Going?

"Sit down, Thompson; how's the work going?"

"It isn't going—it's ***dragging***."

"What's the matter—men sore?"

"No! There's no complaint. Grub is good; men seem willing enough—but they don't put their heart into the work."

"Say, Thompson, why don't you get real beds for the men, ***like the one I'm sitting on?***"

"Holy mackerel! I ain't running a Ritz-Carlton Hotel at my camp."

"I don't mean brass beds and Ostermoor mattresses; I mean sanitary steel bunks ***with real springs***. They will be money in your pocket."

"You mean money ***out*** of my pocket."

"No, sir! The trouble with your men is lack of rest. They don't get a good night's rest on those hard, wooden bunks of yours that can't possibly be kept free from vermin; they can't do a day's work. Those old bunks are costing you a pile of money, because they are keeping the men from doing their best work.

"Tell you what, Thompson, rip out the old wooden shelves that your men are trying to sleep on—put in ***'Alaska' Sanitary Steel Bunks***—and you'll find that your men will turn out about 25% more work. I proved it myself, and so did Miller." (***So have many others.***)

Alaska Sanitary Steel Bunks Cost More, But are the Cheapest in the End.
It's Not Too Late to Equip *Your* Camp With Them. May We Quote You?

The Parkhill Manufacturing Co., Limited

MONTREAL — WINNIPEG
GUARANTEED ALASKA BEDDING
TRADE MARK REGISTERED

Successors to
THE ALASKA FEATHER & DOWN CO., LIMITED
Makers of Steel Bunks, Bedsteads and Bedding
400 St. Ambroise St. :-: MONTREAL
"ALASKA on an article means HIGH-GRADE EVERY PARTICLE"

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better.	$50 00	52 00
1½ inch No. 1 cuts and better.	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing ..	35 00	36 00
1 x 12 common and dressing...	38 00	40 00
1 x 10 and 12 mill cull stocks.	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out.	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	40 00
1 x 8 box and common		30 00
1 x 10 inch box and common.		32 00
1 x 12 inch box and common.		32 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	30 00	32 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill run 1-in. and 2-in.	28 00	30 00
Spruce mill culls	25 00	26 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		22 00
1 x 6-in. x 9 to 16 ft.		26 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		27 00
2 x 4 to 12 in., 12 and 14 ft. .		26 00
2 x 4 to 12-in., 18 ft.		30 00
2 x 4 to 12-in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in. B.C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		36 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		37 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		37 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		38 00
10x20, 18x20, up to 32 ft.		38 50
6x18, 8x18, up to 32 ft.		38 50
6x20, 8x20, up to 32 ft.		39 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain..		39 00
Fir flooring, 1 x 4, edge grain..		42 00
Fir flooring, 1 x 4, flat grain ..		33 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1, 4-ft. pine lath...		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath.		4 25
1½-in. mill run hemlock lath..		4 00
XX B. C. cedar shingles		2 55
XXX 6 butts to 2-in.		3 60
XXXXX		4 05

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, com. and bet.....	40 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4..	60 00
Birch, 1st and 2nds, 4/4	44 00
Birch, No. 1 com. and bet., 4/4	35 00
Birch, 1st and 2nds, 6/4 and 8/4	46 00
Birch, 1st and 2nds, 10/4 and 12/4....	60 00
Birch, 1st and 2nds, 16/4	62 00
Basswood, 1sts and 2nds, 4/4	48 00
Basswood, No. 1 com. and bet., 4/4....	35 00
Basswood, No. 2 and 3, common	21 00
Basswood, 6/4 and 8/4, 1sts and 2nds.	48 00
Basswood, 6/4 and 8/4, com. and bet..	40 00
Basswood, 4/4, No. 2 com. and bet....	34 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft Elm, No. 1 com. and bet., 4/4	35 00
Soft Elm, No. 2 and 3 common	19 00
Soft Elm, 6/4 and 8/4, 1 and 2	45 00
Rock Elm, 1sts and 2nds, 6/4 x 8/4...	55 00
Rock Elm, No. 2 com. and bet. 6/4 and 8/4	40 00
Soft Maple, 1sts and 2nds, 4/4	33 00
Soft Maple, com. and bet., 4/4	25 00
Soft Maple, 6/4 & 8/4, 1sts and 2nds..	35 00
Hard Maple, 1sts and 2nds, 4/4	40 00
Hard Maple, common and better, 4/4..	33 00
Hard Maple, 12/4 & 16/4, 1sts and 2nds	50 00
Red Oak, plain, 1sts and 2nds, 4/4	62 00
Red oak, plain, No. 1 com., 4/4	43 00
Red Oak, plain, No. 2 com., 4/4	32 00
Red Oak, plain, 1sts and 2nds, 6/4 & 8/4	68 00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White Oak, plain, 1sts and 2nds, 4/4..	62 00
White Oak, plain, No. 1 com., 4/4.....	42 00
White Oak, plain, No. 2 com., 4/4.....	32 00
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	60 00
Red and White Oak, plain, No. 1 com. 5/4 and 6/4	45 00
Red and White Oak, plain, No. 2 com. 5/4 and 6/4	35 00
Red and White Oak, plain, 1sts and 2nds, 8/4	70 00
Red and White Oak, plain, No. 1 com. 8/4	50 00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00
White Oak, ¼ cut, 1sts and 2nds, 4/4.	89 00
White Oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	92 00
White Oak, ¼ cut, No. 1 common	57 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds. ..	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $52 00		54 00
1¼-in. and 1½-in. x 8-in. & up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up...	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	33 00	35 00
Pine, No. 1 dressing strips.....	29 00	30 00
Pine, No. 1 dressing shorts	24 00	26 00
Pine, 1-in. x 4-in. s.c. strips.....		30 00
Pine, 1-in. x 5-in. s.c. strips.....		31 00
Pine, 1 in. x 6-in. s.c. strips ...		32 00
Pine, 1-in. x 7-in. s.c. strips.....		30 00
Pine, 1 x 8 in., s.c., 12 ft. to 16 ft.		32 00
Pine, 1-in. x 10-in. M. R.		36 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in..	24 00	26 00
Pine, s.c. and bet., shorts, 1 x 5		24 00
Pine, s.c. and bet., shorts, 1 x 6		26 00
Pine, s.c. shorts, 6'-11', 1"x 10"		30 00
Pine box boards:		
1"x 4" and up, 6'-11'		24 00
1"x 3", 12'-16'		24 00
Pine, mill culls. strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	22 00	24 00
Pine, mill culls stock, 1 x 12 ...		26 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		21 00
O. culls r & w p	14 00	15 00
Red Pine, log run:		
mill culls out, 1-in.	20 00	22 00
mill culls out, 1¼-in.	21 00	23 00
mill culls out, 1½-in.	21 00	23 00
mill culls out, 2-in.	23 00	25 00
mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	17 00	18 00
1"x 4" and up, 12'-16'	24 00	26 00
1"x 9"-10" and up, 12'-16'..	25 00	27 00
1¼"x 7" 8-9" and up, 12'-16'	25 00	27 00
1¼"x 10" and up, 12'-16'...	25 00	27 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce, 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock, 1-in. cull	13 00	15 00
Hemlock, 1-in. log run	17 00	20 00
Hemlock, 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood, log run, dead culls out	22 00	24 00
Basswood, log run, mill culls out	23 00	26 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$56 00
1 in., 8 in. and up wide	65 00
1¼ and 1½ in. and up wide	67 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	52 00
6/4 x 8 and up No. 1 and better	63 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	54 00
8/4 x 6 and up No. 2 and better	56 00
6/4 x 6 and up No. 3 and better	48 00
8/4 x 6 and up No. 3 and better	52 00
No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1¼ in., 8 in. and up wide	59 00
1½ in., 8 in. and up wide	59 00
2 in., 8 in. and up wide	62 00
2½ and 3, 8 in. and up wide	75 00
4 in., 8 in. and up wide	85 00
No. 2 Cuts	
1 in., 6 in. and up wide	34 00
1¼ in., 6 in. and up wide	47 00
1½ in., 6 in. and up wide	47 00
2 in., 6 in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6 in. and up wide	24 00
1¼ and 1½ in., 6 in. and up wide....	33 00
2 in., 6 in. and up wide	33 00
2½, 3 and 4 in., 6 in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1-in. x 4-in.	29 00
1-in. x 5-in.	29 00
1-in. x 6-in.	30 00
1-in. x 8-in.	31 00
1-in. x 10-in.	33 00
1 in. x 12 in.	35 00
1 in. x 13 in. and up	35 00
1¼, 1½ and 2 in.	32 00
No. 1 Barn	
1 inch	34 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	30 00 36 00
1¼, 1½ and 2-in.	32 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	29 00 33 00
No. 1, 1, 1¼, 1½, 2-in.	29 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	24 00 27 00
No. 2, 1¼, 1½, 2-in.	24 00
Mill Culls	
Mill run culls, 1-in.	23 00
1, 1¼, 1½ and 2-in.	24 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 85
No. 2, 48-in. pine	4 60
No. 1, 48-in. pine	5 00
No. 3, 48-in. pine	4 15
Hemlock Lath, 48-in.	4 15

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension. S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14 & 16 ft.
2 x 4, 6, 8 ..	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.

2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 4 6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12; 8 16 ft.	28 50
2 x 10 and 2 x 12; 18, 20, 22 ft.	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50
No. 1 Common Boards.	
4 inch	23 00
6 inch	25 50
8, 10, 12 inch	27 50
Mixed widths	26 50
Flooring.	
4 or 6 inch No. 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	26 00
Shiplap—Finished.	
6 inch	24 00
8, 10 and 12 inch	25 00
Siding.	
6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00
Lath.	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed) ...	4 50

PINE ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 16
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft.	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft. ..	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft.	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft. ..	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft. ..	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft. ..	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in. F. G.	30 00
Nos. 1 and 2, 1 x 6 in., F. G.	35 00
No. 3, 1 x 4 in.	28 00
No. 3, 1 x 6 in.	33 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ¾ x 1¾ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ¾ x 1¾ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers, 4/4 .....$	100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 56)

ALLIGATOR BRAND

The Right Harness for Lumbering

Your horses will give you much better work when you equip them with Alligator Brand Harness. We have studied the problem carefully and know exactly the correct weight required for the purpose without getting the set too heavy. Our harness for heavy work is specially constructed of waterproof leather and extra strong hardware. It will give you the best of satisfaction in work that requires much exposure to the weather. Write for our catalogue and price lists.

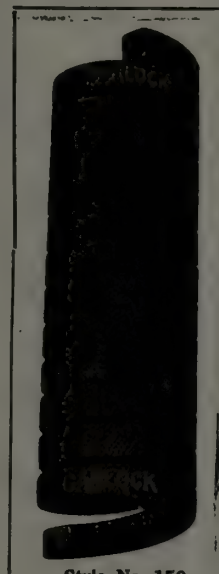
Lamontagne Limited

MONTREAL—338 Notre Dame St. W.
WINNIPEG—85 Princess St.

Garlock Packings

Are made in over two hundred styles and combinations to meet every known requirement. We will assume entire responsibility in selecting the proper styles and combinations of our packings to work successfully and economically under any stated condition; and if goods are not wholly satisfactory to purchaser we will refund promptly the cost of same. A card will bring our new catalog which fully describes our various styles of packings.

Style No. 777


Style No. 150

The Garlock Packing Co.

Hamilton, Ontario

Branches: Calgary, Montreal

Branches: Toronto, Winnipeg

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Type "F"
Full Automatic Feed—Water Attachment.

Knives Ground on an
AUTOMATIC KNIFE GRINDER
Means Less Cost, Greater Production, Better Work.

This cut shows our Type "F" Full Auomatic Feed Knife Grinder which has come to be a most popular machine; is especially adapted for grinding planer knives as well as all knives of medium weight.

Made in sizes from 26" to 54"

We also make a full line of AUTOMATIC CIRCULAR AND BAND SAW SHARPENERS

Write for our Complete Catalogue

Samuel C. Rogers & Company
18 Lock St., BUFFALO, N.Y.

DARLINGS STEAM APPLIANCES

DARLING BROTHERS
LIMITED
Engineers and Manufacturers
MONTREAL, CANADA

Branches: Toronto and Winnipeg
Agents: Halifax, St. John, Calgary, Vancouver

CURRENT LUMBER PRICES — Continued

No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	34 - 35	21 - 23	13 - 15
5/4 to 8/4	37 - 38	24 - 25	14 - 15
10/4 to 16/4	43 - 45	31 - 33	20 - 22

RED BIRCH

4/4	45 - 47	28 - 30	14 - 16
5/4 to 8/4	46 - 48	30 - 32	16 - 18

SAP BIRCH

4/4	41 - 43	28 - 30	18 - 20
5/4 and up	41 - 43	28 - 30	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	34 - 36	23 - 25	15 - 17
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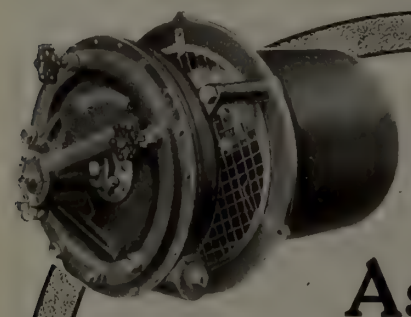

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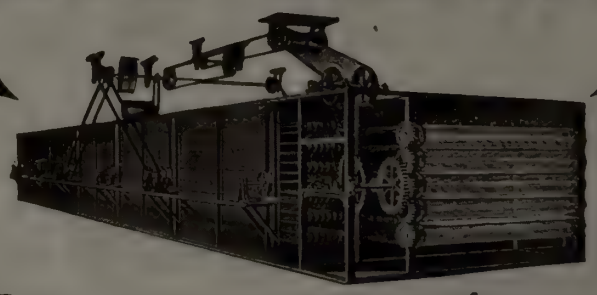

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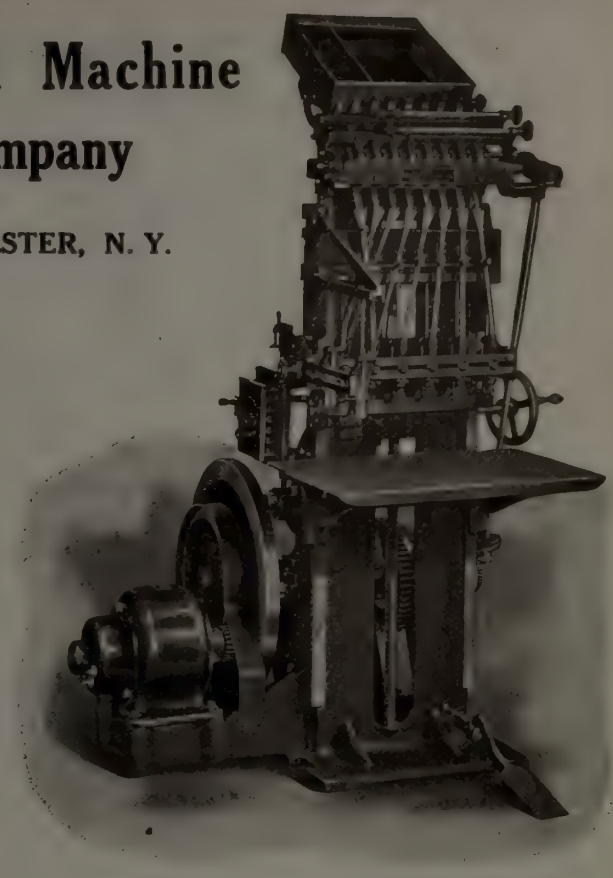

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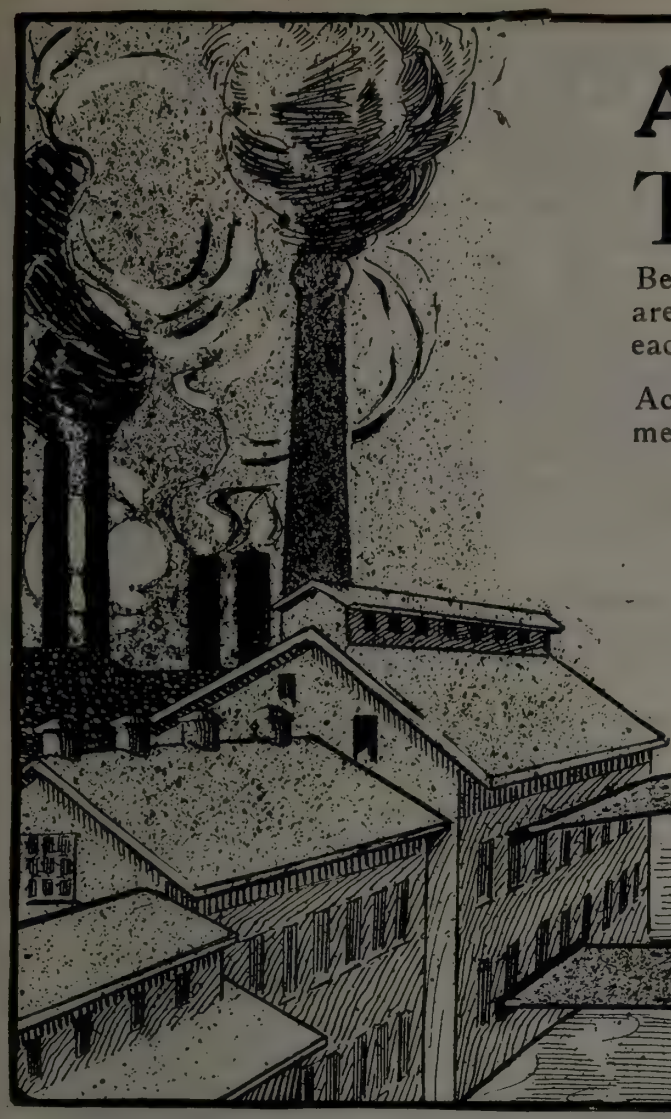

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Hamilton Company, William
Smart-Turner Machine Company
Waterous Engine Works Company

RAILS
Gartshore, John J.

RESAWS
Mereen Johnson Machine Co.

ROPE
Consumers Cordage Company
Waterous Engine Works Company

RUBBER GOODS
Atlas Asbestos Co.
Gutta Percha & Rubber Company

SASH
Haeberle Lumber Company

SAW AND KNIFE MACHINERY
Machinery Company of America

SAWS
Atkins & Company, E. C.
Disston & Sons, Henry
Hoe & Company, R.
Shurly-Dietrich Company
Simonds Canada Saw Company
Smith Company, R. H.

SAW SHARPENERS
Machinery Company of America
Rogers & Company, Samuel C.
Waterous Engine Works Company

SAW MILL MACHINERY
Canadian Link-Belt Company, Ltd.
Dunbar Engine & Foundry Co.
Fisher & Davis Mfg. Company
Hamilton Company, William
Huther Bros., Saw Mfg. Company
Jeffrey Manufacturing Company.
Long Manufacturing Company, E.
Machinery Company of America
McLennan Foundry & Mach. Works
Mereen Johnson Machine Co.
Mershon & Company, W. B.
Parry Sound Lumber Company
Payette & Company, P.
Smith Foundry Company.
Waterous Engine Works Company
Yates Machine Co., P. B.

SHINGLES
Bathurst Lumber Company
Blanchard Lumber Company
Campbell-MacLaurin Lumber Co.
Canadian Western Lumber Company
Fraser Limited
General Mercantile Company
Gillespie, James
Harris Tie & Timber Company
Heeney, Percy E.
Long Lumber Company
McGibbon Lumber Company
McLennan Lumber Company
Terry & Gordon.
Timms, Phillips & Company
Vancouver Lumber Company

(Continued on page 64)

The Babbitt Metal that's at the Front in Efficiency and Economy

HARRIS HEAVY PRESSURE

"The Babbitt Metal Without a Fault," is guaranteed to give EXCELLENT SERVICE. It will not crack or squeeze out. It will run cool at any speed. It is copper coated and copper hardened. It is best for all general machinery bearings. Order a box from our nearest factory.

It is Made in Canada. What We Make We Guarantee.

We Manufacture All Grades of Babbitt Metals.

WRITE FOR COMPLETE LIST

THE CANADA METAL COMPANY, Limited

Head Office and Factory TORONTO Fraser Avenue

Branch Factories :—HAMILTON, MONTREAL, WINNIPEG, VANCOUVER

FIRE BRICK

Differs in Quality and Variety

For instance, a certain quality or kind of brick that gives satsatisfaction when used in a Refuse Burner, may show up poorly if used in a Dutch Oven.

It all depends on getting the right kind and the right quality for your particular needs.

Just tell us what you want it for, and we'll send a fire-brick that was made for that very purpose.

We Manufacture the Following Well-Known Brands

"Elkco" "Elk Steel," "St Marys," "Keystone" and "Rotex"

Write for a copy of our Catalog.

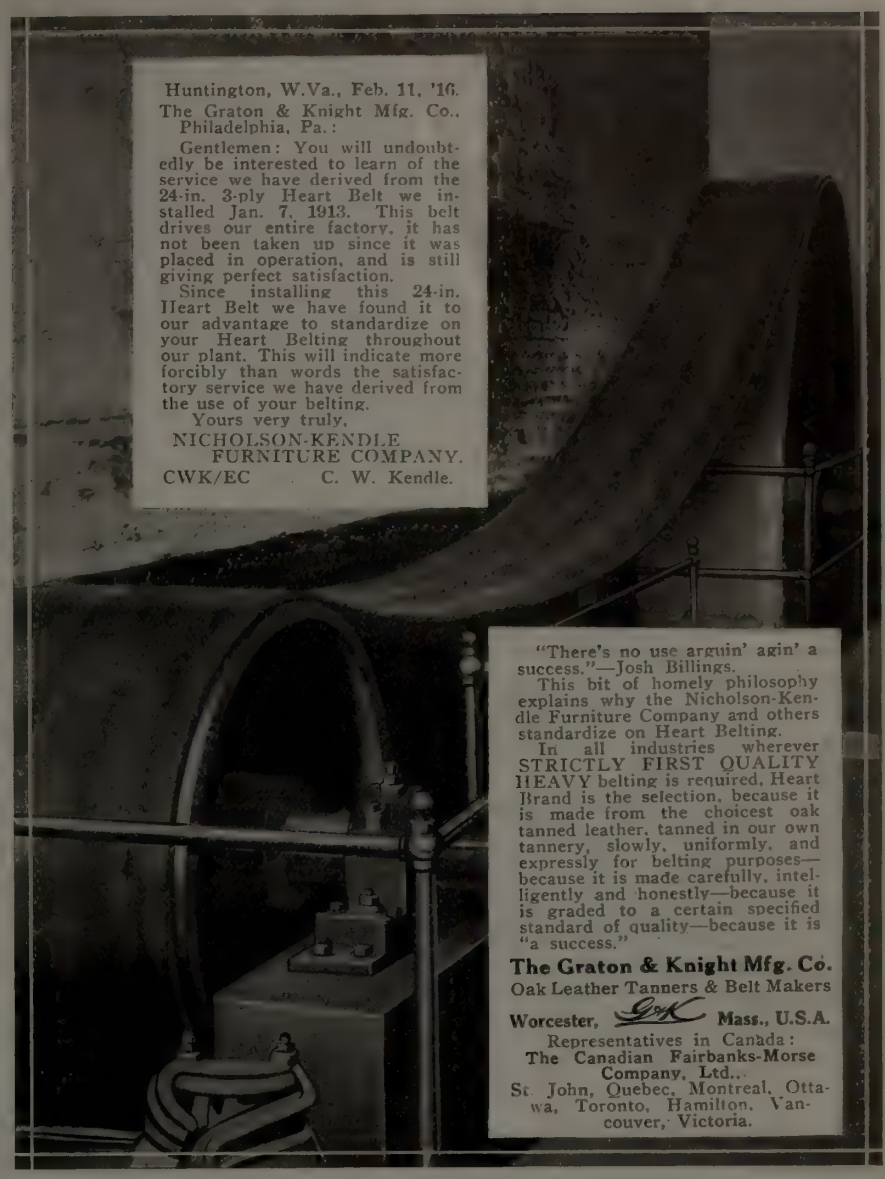
"Refractory Efficiency Engineering"

Elk Fire Brick Co. of Canada, Limited

HIGH GRADE FIRE BRICK and CLAY

Sun Life Bldg., Hamilton, Canada

Representatives for Maritime Provinces:
RHODES, CURRY COMPANY, LTD., Head Office, AMHERST, N. S.
Branches at Halifax, Sydney and New Glasgow, N.S.


Huntington, W.Va., Feb. 11, '16.
The Graton & Knight Mfg. Co.,
Philadelphia, Pa.:
Gentlemen: You will undoubtedly be interested to learn of the service we have derived from the 24-in. 3-ply Heart Belt we installed Jan. 7, 1913. This belt drives our entire factory, it has not been taken up since it was placed in operation, and is still giving perfect satisfaction.
Since installing this 24-in. Heart Belt we have found it to our advantage to standardize on your Heart Belting throughout our plant. This will indicate more forcibly than words the satisfactory service we have derived from the use of your belting.
Yours very truly,
NICHOLSON-KENDLE FURNITURE COMPANY.
CWK/EC C. W. Kendle.
"There's no use arguin' agin' a success."—Josh Billings.
This bit of homely philosophy explains why the Nicholson-Kendle Furniture Company and others standardize on Heart Belting.
In all industries wherever STRICTLY FIRST QUALITY HEAVY belting is required, Heart Brand is the selection, because it is made from the choicest oak tanned leather, tanned in our own tannery, slowly, uniformly, and expressly for belting purposes—because it is made carefully, intelligently and honestly—because it is graded to a certain specified standard of quality—because it is "a success."
The Graton & Knight Mfg. Co.
Oak Leather Tanners & Belt Makers
Worcester, G&K Mass., U.S.A.
Representatives in Canada:
The Canadian Fairbanks-Morse Company, Ltd.,
St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, Vancouver, Victoria.

Saw Gumming is an All Important Job

And the success of this job in many a saw mill depends upon

Aloxite Saw Gumming Wheels

For the reason that they cut cool and clean and fast, even when forced to the limit—and they hold their shape—show long life.

There is nothing superior to Aloxite for steel grinding—it is hard, sharp and of just the right degree of toughness and Aloxite Saw Gumming wheels are

The Right Wheels in the Right Place

Suppose you let Carborundum service help you to better grinding service.

THE CARBORUNDUM COMPANY

NIAGARA FALLS, N. Y.

New York Chicago Philadelphia Pittsburgh Boston Cleveland Cincinnati Grand Rapids Milwaukee Manchester, Eng.

SHINGLE & LATH MACHINERY
Dunbar Engine & Foundry Co.
Hamilton Company, William
Long Manufacturing Company, E.
Payette & Company, P.
Smith Foundry Co.
Waterous Engine Works Company

SHOE PACKS
Gendron Shoepack Company, P. T.
Palmer Company, John

SILENT CHAIN DRIVES
Canadian Link-Belt Company, Ltd.

SLEEPING ROBES
Smart Woods Limited

SNOW PLOWS
Pink Company, Thos.

SODA PULP PLANTS
Becker & Co.

SOUTHERN PINE
Arkansas Land & Lumber Company
Arkansas Lumber Company
Arkansas Soft Pine Bureau
Cameron & Company
Chicago Lumber & Coal Company
Cotton Belt Lumber Company
Crossett Lumber Company
Eagle Lumber Company
Edgar Lumber Company
Freeman-Smith Lumber Company
Fordyce Lumber Company
Gates Lumber Company
Hobart & Company
Long Lumber Company
Mason, Gordon & Company
McLennan Lumber Company
Muir & Kirkpatrick
Southern Lumber Company
Stout Lumber Company
Wilson Lumber Company
Wisconsin & Arkansas Lumber Co.
Wuichet, Louis

SPARK ARRESTERS
Canada Wire & Iron Goods Co.

SPRUCE
Bathurst Lumber Company
Blanchard Lumber Company
Bourgouin, H.
Brown Corporation
Donogh & Company, John
Fraser Limited
Fraser-Bryson Lumber Company
Gillies Bros.
Grant & Campbell
Hart & McDonagh
Laferte, J. A.
Long Lumber Company
Mason, Gordon & Company
McLennan Lumber Company
Muir & Kirkpatrick
Murray & Gregory
New Ontario Colonization Company
River Ouelle Pulp & Lumber Co.
Spencer, C. A.
Stone, Fred J.
Terry & Gordon.

STEEL CHAIN
Canadian Link-Belt Company, Ltd.
Columbus Chain Company
Jeffrey Mfg. Company
McKinnon Chain Company
Waterous Engine Works Co.

STEAM PLANT ACCESSORIES
Waterous Engine Works Company

STEAM APPLIANCES
Darling Bros.

STEAM TRAPS
Canadian Morehead Mfg. Company

STEEL BARRELS
Smart-Turner Machine Co.

STEEL DRUMS
Smart-Turner Machine Co.

STOKERS
Jones Underfeed Stoker Company

TAPS and DIES
Pratt & Whitney Company
Waterous Engine Works Company

TARPAULINS
Smart Woods Limited

TEA
Salada Tea Company

TENTS
Smart Woods Limited

TIES
Austin & Nicholson
Harris Tie & Timber Company
Long Lumber Company
McLennan Lumber Company
Muir & Kirkpatrick
Terry & Gordon.

TIME RECORDERS
International Time Recording Co.

TIMBER BROKERS
Cant & Kemp
Farnworth & Jardine
Hillas & Company, W. N.
Smith & Tyrer Limited

TIMBER CRUISERS AND ESTIMATORS
Lauderburn, D. E.
McInnis, A. D.
Sewall, James W.

TIMBER LANDS
Lacey Co., Jas. D.

TOWING WINCHES
Corbet Foundry & Machine Co.

TRANSMISSION MACHINERY
Canadian Link-Belt Company, Ltd.
Dodge Manufacturing Company
Jeffrey Manufacturing Company
Waterous Engine Works Company

TRANSMISSION ROPE
Consumers Cordage Company

TUGS
West & Peachey

TURBINES
Hamilton Company, William
Smith Company, S. Morgan.

VALVES
Canadian Boomer & Boschert Press Company
Canadian Pulp Mill Machinery Co.

VENEERS
Canadian Western Lumber Company
Webster & Bro., James

VENEER MACHINERY
Perrin, William R.
Philadelphia Textile Machinery Co.

VETERINARY REMEDIES
Palmer Medical Company

WATCHMEN'S CLOCKS
Signal Systems Co.

WATER WHEELS
Hamilton Company, William
Smith Company, S. Morgan

WIRE CLOTH
Canada Wire & Iron Goods Co.

WOOD DISTILLATION PLANTS
Blair, Campbell & McLean, Ltd.

WOODWORKING MACHINERY
Canadian Blower & Forge Company
Jeffrey Manufacturing Company.
Long Manufacturing Company, E.
Machinery Company of America
Mereen Johnson Machine Co.
Waterous Engine Works Company
Yates Machine Co., P. B.

WOOD PULP
Austin & Nicholson
Becker & Co.
New Ontario Colonization Co.
River Ouelle Pulp & Lumber Co.

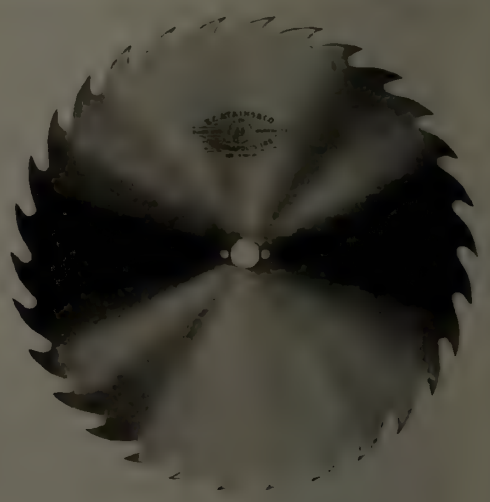
YELLOW PINE
Blanchard Lumber Company

ATKINS

ALWAYS AHEAD!

The most advanced improvements in Saw manufacture have placed us far ahead in the manufacture of Saws for all uses.

Our Band and Circular Saws are worthy examples. They cut more timber—do it with less power and require less repair to be kept in perfect condition.



Economy in mill operation has proved their value. Put them through competitive tests with other Saws.

The Sterling quality of

Atkins Sterling Steel Saws

will overcome your difficulties.

E. C. ATKINS & CO.

Factory—HAMILTON, ONT. **Branch—109 Powell St., VANCOUVER**

J. J. TURNER & SONS

PETERBOROUGH, ONT.

Government Contractors and the largest Manufacturers and Dealers in Canada of

Lumbermen's Tents, Bed Ticks, Grey Blankets, Nose Bags, Waterproof Goods, Steel Ranges and General Camp Outfits.

Write for Catalogue. **Prompt shipments.**

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog "H."**

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

Why Take a Chance

When you can get *Service* and Satisfaction without it?

Experimenting with different brands and grades of gloves and mittens is not only expensive but it's dangerous—you would never think of using an axe-blade that was not both durable and dependable.

ASBESTOL
REG. IN U.S. PAT. OFF.

EISENDRATH'S CELEBRATED HORSE HIDE

Gloves and Mittens

"ASBESTOL" Gloves and Mittens give you long and durable service, and, above all, they **satisfy.**
Look for this diamond-shaped trademark the next time you buy a pair of gloves or mittens.

"ASBESTOL"

Dealers—"ASBESTOL" Gloves and Mittens can be had from your jobber. Ask him to send you an introductory assortment.

Eisendrath Glove Co.
2001 Elston Ave.
CHICAGO, ILL.

LOGGING LOCOMOTIVES

Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

MONTREAL LOCOMOTIVE WORKS, LIMITED,

DOMINION EXPRESS BUILDING, MONTREAL, CANADA.

Steam Log Kickers

The illustration shows our Standard Double Deck Steam Log Kicker which we manufacture with cylinders 8 in., 10 in. and 12 in. bore. This kicker is made for either single or double deck mills. The bottom head of the cylinder is cast solid, eliminating the necessity of taking the machine apart for packing. The joint between the valve case and cylinder is a "ground joint" which is perfectly steam tight and requires no packing.

Catalogue on request

The E. Long Mfg. Co., Limited

Orillia, Ont.

This mark on your saw mill machinery is an indication that your lumber manufacturing equipment is the best and most economical money can buy.

THE E. LONG MANUFACTURING CO. SAW MILL MACHINERY ORILLIA, CANADA

An Edger for 6" Cants

You can put a 6-in. cant through this edger and know that it will come through edged to a hair. Edger carries 22-in. saws, 6-in. saw collars, leaving 7-in. clear saw blade, more than enough margin for 6-in. stock

Mandrel is 3⅞-in. in diameter, the three bearings that support it are each almost 10-in. long—the rest of the machine is built in proportion. That's why Waterous New Champion Edgers can be crowded to the limit and will turn out full capacity, day after day, without falling down.

Notice the feed rolls, two before and two behind the saws. They are machine fluted to give a firm, secure grip on the timber that holds it fast, but will not mar it in any way.

The press rolls are divided, too, making both sides of the machine independent of each other. It's a worth while feature, decidedly.

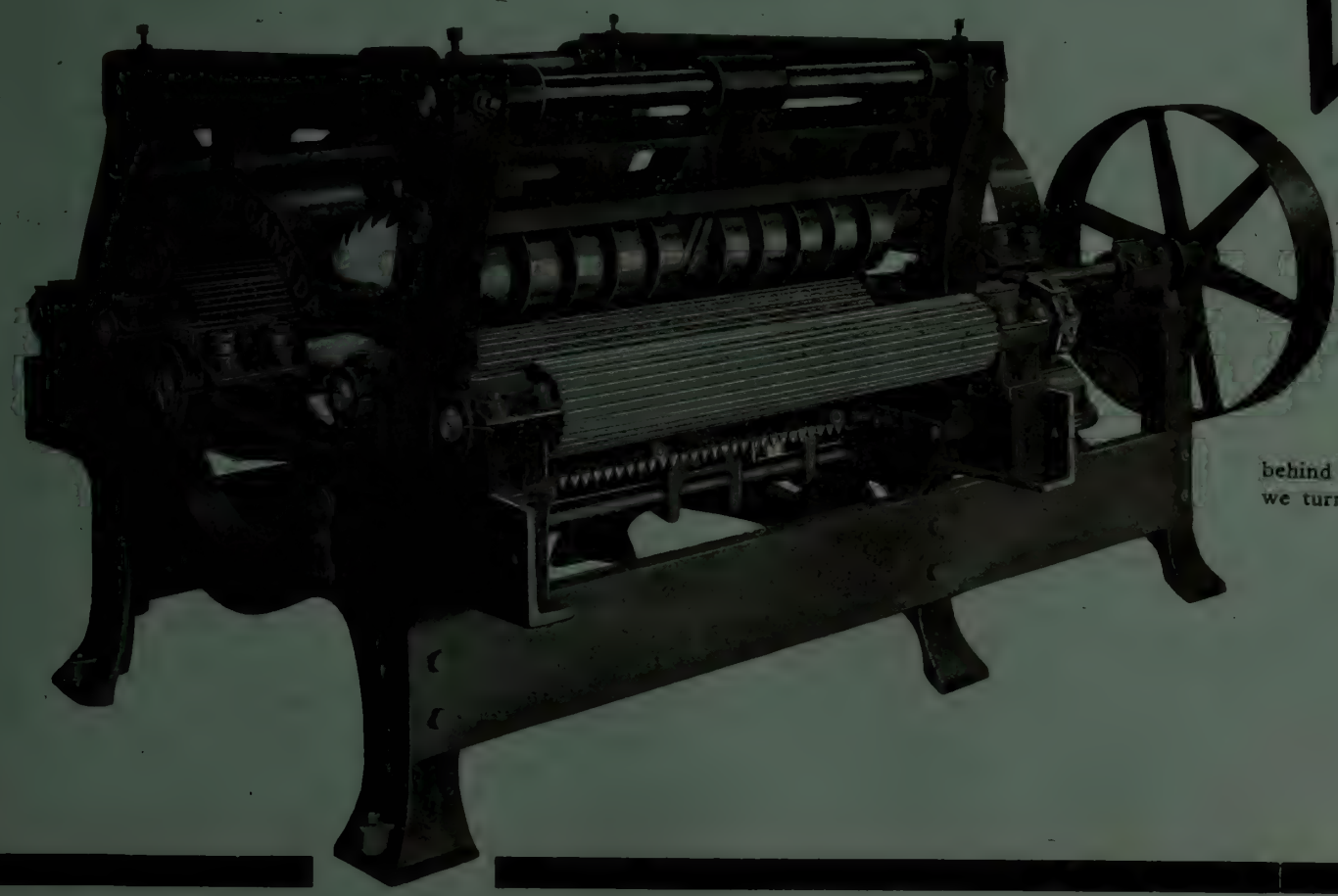
We build up-to-date Machinery for Sawmills or every capacity—circular or band

Catalogues on request

WATEROUS NEW CHAMPION EDGERS

are built with 40", 48", 56", 60" and 72" opening. They carry as many as four movable and two stationary saws without difficulty.

These edgers cut true and to dimension at all times. The guides are rigid and cannot shift in the cut. They are crowded to correct position and held immovably in place by a steel setting gauge that drops upon them. No other Edger has this feature.



Waterous New Champion Edgers are fast and accurate cutting, easily operated, and perfectly safe. We stand behind every machine we turn out.

The Waterous Engine Works Co., Ltd., Brantford, Canada

$5,000,000.00
worth of mixed metal sold annually.

"FROST KING" METAL

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price 30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our TROJAN BABBITT will stand where all other metals will fail. Price, Fort William and East, 40c per lb.; West of Fort William, 45c, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

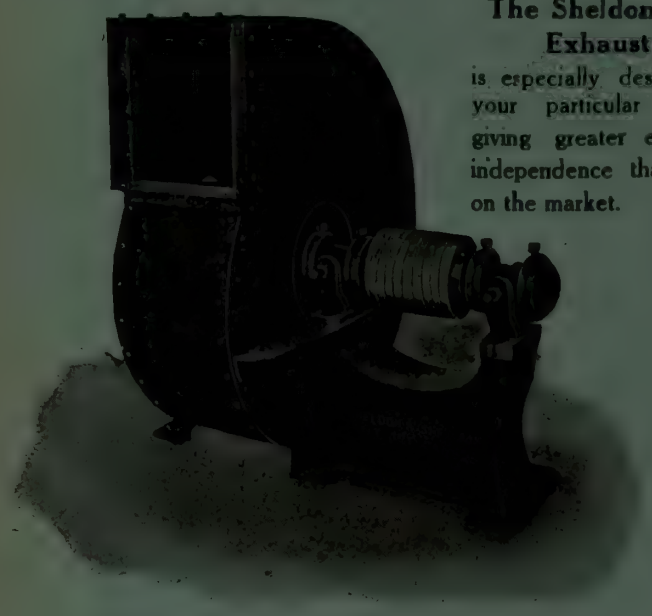
HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

is especially designed to suit your particular requirements giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

Messrs. Ross & Greig, 412 St. James St. Montreal, Que. Messrs. Walker's Limited, 259-261 Stanley St. Winnipeg, Man.

Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.

Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.

Montreal Toronto Winnipeg

The J. C. McLaren Belting Co.
Limited

General Mill Supplies MONTREAL

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made

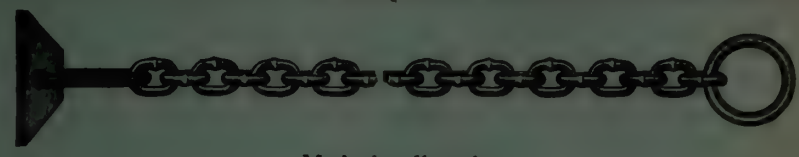
Vol. 37 Toronto, April 1, 1917 No. 7

Canada Lumberman & Wood Worker

DART UNION SERVICE

MEANS NO LEAKS OR UPKEEP COST

Your Jobber Sells DART Union Pipe Couplings



Made in all styles

Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Canadian Mill Exhausters

Good fans, well built of good materials. Not copies, but designed to give results by tests, and with every desirable feature carried one step further.

Reversible and interchangeable—long, heavy, self-aligning bearings.

Send for a Catalog—Dept. 17.

Canadian Blower and Forge Co., Limited

KITCHENER, (formerly Berlin), ONT.

St. John Montreal Toronto Winnipeg Vancouver

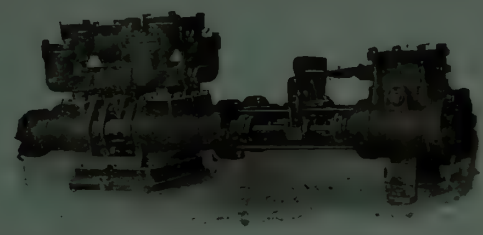
ASBESTOS

We manufacture practically every article that can be made of Asbestos—including

Asbestos { Packings, Boiler Gaskets, Pipe and Boiler Coverings

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)



REDUCE repair bills. INCREASE efficiency.

by the installation of Pumps built by

The Smart-Turner Machine Co., Limited

HAMILTON - CANADA

BUY EMPIRE GOODS WHEN EFFICIENCY IS GUARANTEED.

J. M. T. Reducing Valves

PATENTED

We offer the one successful valve that will positively reduce the steam pressure from boiler to required power and keep the lower pressure even, continuously. In constructing this latest type reducing valve we have gone over every previous good idea along this line, and our present type has proven absolutely reliable under all conditions. We sell the J. M. T. Reducing Valve under a positive guarantee. Send for illustrated folder, giving method of operation, prices, installations, etc., of this valve.

The James Morrison Brass Mfg. Co., Limited

93-97 Adelaide Street West, TORONTO

MADE IN CANADA.

Alphabetical Index to Advertisers, Page 48 Classified Directory to Advertisements, Page 56

Facts to remember when ordering Files—

"Famous Five" files are made in standard kinds and sizes. The kinds most called for are taper, slim taper, mill, flat, half round, round and square.

The sizes go by half inches up to 6" in length on taper and slim taper and by inches on other kinds up to 8" then every 2" above that.

It is not advisable to order odd sizes like 6½" or 13" because it means readjusting machines. That takes longer time whereas standard size files can always be had more promptly.

The regular cuts are bastard, second cut and smooth. The cut is determined by the number of teeth per inch.

These facts about files are not generally known but it is well to bear them in mind when ordering.

Specify "Famous Five" files on all orders.

They are:

Kearney & Foot

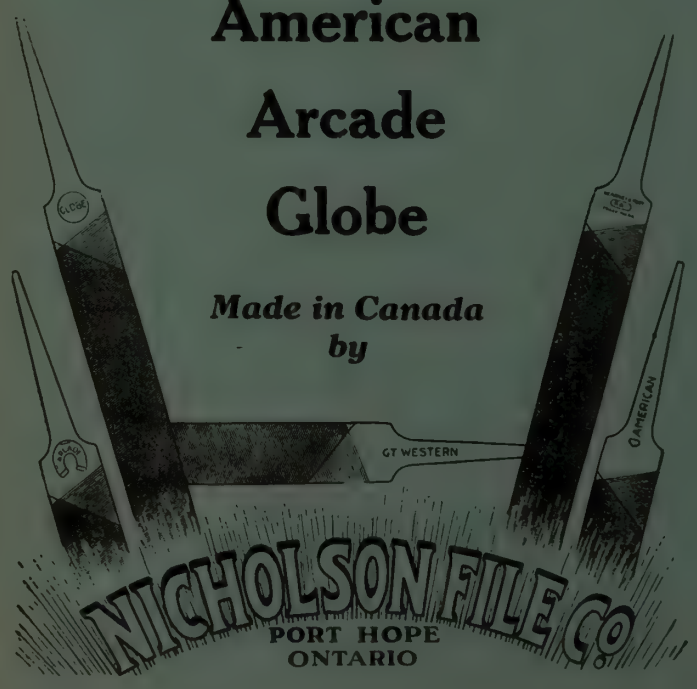
Great Western

American

Arcade

Globe

Made in Canada by



FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20 ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
1 Wood Machine for 22-in. wood.
1 Edger for ripping dry lumber, installed.
1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

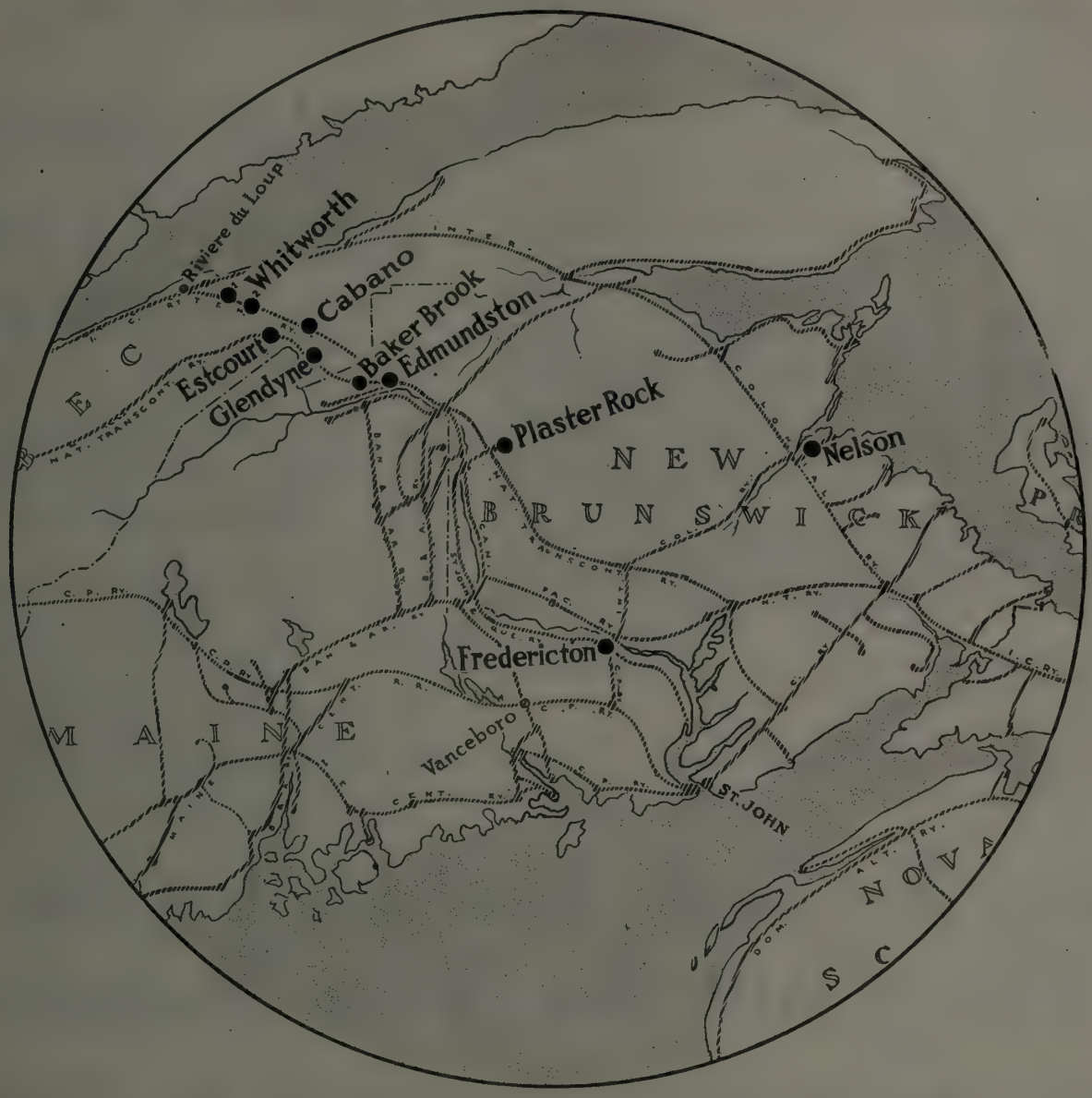
The Parry Sound Lumber Co.

Limited

26 Ernest Ave.

Toronto, Canada

Ten Band Mills to Serve You



Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

Fraser Limited, Fredericton, N. B.

ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

Victoria Lumber and Mfg. Company, Limited

Established 1888.

CHEMAINUS, B.C.

We solicit your inquiries regarding the uses and adaptability of British Columbia Products.

Our Specialty

ROUGH and DRESSED TIMBERS

ANY SIZE OR LENGTH

We carry in stock Fir Flooring, Ceiling, Siding and Finish, Red Cedar Shingles and Bevel Siding

ONTARIO SALES OFFICE

R. G. Chesbro, Representative

1503 Traders Bank Bldg.

Telephone Main 2666

Toronto, Ont.

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

We Want to Move Quick

50,000 ft.—2x4 and up No. 1 and 2 Red Pine Mill Culls
350,000 ft.—1x4 and up No. 2 Longford Hemlock
150,000 ft.—2x6 and up No. 2 " "
200,000 ft.—2x4 No. 2 " "
15,000 ft.—1x5 No. 1 and up " Hemlock Sidings
30,000 ft.—1x6 10/16 No. 1 " "
8,000 ft.—1x7 10/16 No. 1 " "
30,000 ft.—1x8 10/16 No. 1 " "
5 cars 3X British Columbia Red Cedar Shingles.

Get our prices on the above stock.
They will interest you.

The Long Lumber Company
Hamilton, Canada

Nashwaak Pulp and Paper Company
ST. JOHN, N. B.

Manufacturers of

BLEACHED SULPHITE & LUMBER

(Successors to Edward Partington Pulp and Paper Co., Limited)

George Gordon & Co.

Limited

Cache Bay - Ont.

Manufacturers of

RED and WHITE PINE

PLANING MILL DRY KILN

Murray & Gregory, Limited

Head Office:
ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

SAW MILLS

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Canada Lumberman & Wood Worker

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Ontario Retailers May Organize

It begins to look as though the retail lumber trade in Ontario is realizing the necessity for doing something in the way of co-operating in order to handle their mutual trade problems efficiently. The trade association movement has been expanding in connection with nearly all branches of the lumber industry and trade during the last two or three years to such an extent that everyone is now more or less conversant with its benefits, and the retail trade of Ontario are apparently to-day in the position of being ready for an organization, but waiting for someone to make a move. The Canada Lumberman has lately done what it could to crystalize opinion among the trade with this object in view, knowing with certainty how great the benefit will be if they go into the matter in a businesslike way.

The Ontario trade, being as yet unorganized, have many advantages in the creation of an association which their predecessors in Western Ontario and in the United States did not enjoy. The way has been cleared for them in a remarkable manner, and the possibilities are to-day so definitely demonstrated that no time need be consumed at the outset in unprofitable experiment along lines that have already been proven to be of no avail, whereas, along a number of distinct lines the benefit of organization work has been convincingly displayed, and the most practical methods of setting forth upon these lines has been worked out. A retail lumbermen's association in Ontario, commencing work to-day, would have all this to guide it. It would know what lines to establish and how to go about it. It would have definite information, moreover, as to the cost and the staff necessary for its work. In fact, the field is open, the path is clear, and the experience of those who have gone before show that there is nothing but success ahead for those who go into the matter enthusiastically.

The need for an association in Ontario cannot be disputed. In this issue we publish a number of letters from retailers, in which some of these needs are discussed, which alone would be ample demonstration of the importance of the work to be done. A few of these needs may be mentioned here. Take, for instance, the substitute menace. However much the retailer may close his eyes to the substitute materials, he cannot get away from the fact that many of them have eaten into his trade to a great extent. An association, by studying this situation, would be able to help its members in handling this problem to the best advantage. Operating costs afford another field of association work. How many retailers know as much as they should about their overhead expenses? Without wishing to criticize, we know, from their own admission, that this is where many of them fall down seriously and actually lose a great deal of money. An association could work out an analysis of operating costs that would be of great benefit to its members. Standard plan books for houses, factories, farm buildings, garages, etc., could be drawn up and published by an association, which would relieve the retailer of many a diffcult problem and help him in landing much good business with a minimum of trouble and expense, at the same time giving the consumer a much superior line of service compared with what he had been obtaining previously. This list of association work could be multiplied many times over, but we only wish to indicate some of the chief lines.

Evidently there is a considerable body of retail opinion in Ontario which is favorable to forming an association. We suggest that those who have already expressed their approval get into touch with one another by holding an informal meeting to talk the question over in detail. This would not involve much of their time, and if they come to the conclusion that the time is ripe to organize, it will not be a difficult matter to canvass the trade, call a general meeting, and get things going. The Canada Lumberman will be glad to assist in every way possible, and hopes in the near future to see something definite accomplished.

Canada's Banking Problems

The banking situation in Canada was discussed by Mr. W. F. Maclean, M.P., at a meeting of the Lumbermen's Section of the Toronto Board of Trade recently. While the subject is not one that is frequently considered by lumbebrmen in its general aspects, it is nevertheless of such importance to them that they listened with keen interest to all that Mr. Maclean had to say, and were impressed by the suggested reforms which he outlined. It surprised the lumbermen to hear it stated at the outset that we in Canada are perhaps one of the most backward civilized nations in connection with the problems of finance and currency, yet Mr. Maclean clearly convinced his hearers that there were many good reasons for coming to such a conclusion.

The first point that he brought out was the necessity for a national currency in the place of a bank currency. The present system of permitting the banks to issue currency had developed out of the old practice of using personal notes issued by merchants in the early days. To-day there is nothing but national currency in Germany, Russia, France, Italy, and the United States. These countries all know the advantages of the system. By national currency Mr. Maclean did not mean paper money or greenbacks. He proposed a national note, backed by a gold reserve and by the credit of the country. The object of this was to mobilize the credit of the country through a note issue, so that it could be more effectively used for developing the resources of the country. In Canada the banks issue currency, in addition to a certain amount issued by the government. When anything in the form of a scarcity of currency develops—for moving the crops or handling other important financial situations—it is necessary for the banks to make an excess issue. With a national currency this situation could be handled much more successfully. The notes issued by Canadian banks are often subject to discount in the United States. National notes backed by a gold reserve and by the credit of the country should never be questioned, and would circulate everywhere at their face value.

Mr. Maclean outlined the situation in the United States. The best currency note in the world to-day was the United States national note. Not long ago, in the United States, there was a panic every few years on account of scarcity of money to take care of the crops. In order to stabilize conditions they made the State the head of the bank-

ing organization. They created a federal reserve bank to mobilize wealth and to lend it out where it required. They also made the national bank a bank of re-discount. Then, whenever a scarcity of money developed for moving crops or for other purposes the bank of re-discount would take notes held by the other banks and discount them, furnishing money in sufficient quantities to meet the temporary requirements, and in this way avoiding panic. In England they had been re-discounting for fifty years. In the United States, on the first day when a scarcity of money showed signs of developing after the creation of the federal reserve bank, the Secretary of the Treasury went to the banks and told them that if they did not lend the money, or if they could not furnish it, the Treasury would issue national notes to meet the emergency. The next day money came back to 5 per cent.

The first thing Sir Thomas White had done after the outbreak of the war was to increase the currency in Canada and to place himself practically at the head of the Canadian banking business. The Canadian Government will now re-discount and issue on the credit of the country national notes up to any amount required. If any bank had talked of re-discounting its notes a few years ago it would have been aiknowledging itself in difficulties. To-day any bank in Canada could go and re-discount its notes, get national notes, and lend these out to its customers. Having gone this far, why should not Canada go the whole length and call in the bank issues, let the banks have all the national notes they require and for which they could put up good security, and practically create a national bank of Canada, which might be the banker for the nation, for the the provinces and big corporations, as well as for all the other banks. In that way the business of our country would be greatly facilitated. The banks would have to give more service, better service, and cheaper service, and they would be able to do so with a flexible currency backed by the nation and with facilities for re-discounting. Then we would have a stable rate of interest and be able to move our crops and to handle any other critical situation far more readily than we could to-day.

Another great question to which Mr. Maclean referred was the necessity for furnishing cheaper money for the farmers. He suggested that the credit of the nation should be put behind an issue of bonds which would practically be mortgages on the farms of the country, thus guaranteeing 6 per cent. money to the farmers. In the United States the farmers could obtain 5 per cent. money. By a system of land grants such as this it would be possible to encourage the farmers to a far greater extent.

Mr. Maclean went into considerable detail upon his subject, and left the lumbermen an impression that radical banking reforms are due in Canada which will make the lumberman's business and that of everyone else much less difficult to conduct.

The Millwork Cost Problem

There was a day, not very long ago, when any discussion about maintaining prices had to be carried on in a whisper for fear a suspicious consumer might get wind of it and drag the manufacturer or the dealer before a magistrate for illegally combining in restraint of trade. Although these days have not entirely passed away, there is already evident quite a different attitude in this connection, both on the part of the public and of governments and courts. The consumer is commencing to realize that his own interests, that is to say, his opportunities for securing good value for his money, depend at all times not upon the rigid laws of unrestrained competition among producers and seller, which is regulated entirely by cost of production accompanied by reasonable profit. The very fact that some consumer is able frequently to obtain what he considers to be bargains, proves that there is something out of joint in the producing or distributing end of the business that supplies him with those bargains. The greater reasonableness on the part of the consumer which is becoming apparent nowadays is based upon the widespread scientific research that has been made into the problems of cost and profit and is enabling manufacturers and sellers, who desire to do so, to place their business upon a sound footing.

There is a marked difference between what should be considered illegal restraint of trade and what is actual scientific regulation of prices in order to insure reasonable business prosperity. So long as price regulation so-called, or known by any other name, confines itself to educating the manufacturer and the seller regarding his costs, leaving it in his own hands to act in accordance with the light he has received by such education, it is not something to be stamped out, but rather to be encouraged, as it brings prosperity, not only to the firms concerned, but to some extent also to all with whom they have business dealings. A firm cannot conduct a successful business without being a source of benefit to all those with whom it comes into business contact.

In the conduct of any line of business there is nothing which approaches in importance the use of scientific methods of ascertaining costs. Take for instance the millwork business and consider the troubles it has faced since its earliest days, in connection with estimating on jobs. Every new job, in the old days, and to a very great extent even today, presents a new set of problems to the millwork estimator; yet why should this be so? Is there not some practical method of setting up definite methods by which new jobs, however intricate they may be can be reduced in large measure to some standard by which they can be estimated? Is it not feasible and possible to establish a uniformity for the production of millwork that will make it possible for the estimator to consult lists and to say with confidence what the price will be, knowing at the same time that his firm will make a reasonable profit if the order is booked?

Experience is the only safe guide for-estimating. Uniform prices can only be brought about by the use of uniform schedules or lists. Nothing is more harmful than a wide range of prices. It produces distrust in the value of the merchandise as well as in the merchant offering it. It invites a wider range of enquiries for prices, oftentimes extending to unnatural sources of supply in the hope of finding someone still doing business in the dark as to his costs. Great industrial and financial successes have invariably been based upon an intimate knowledge of costs, which in turn is founded upon a full analysis of carefully kept records of results of previous business. The more completely one is able to eliminate the personal factor from the estimating problem, and to supplant it by readily accessible records of actual transactions done, the more certain he is of conducting a prosperous business. On the other hand, the firm which continues doing business along the old lines, allowing scientific estimating to be supplanted by haphazard, "guesstimating," is following a line of business which is a source of continual anxiety to himself and to all whom he employs, or with whom he does business.

We do not think that any readers of the Canada Lumberman will question the simple truth of all that we have been writing upon this subject. What will they think, however, of a suggestion that they put these ideas into practice, not only in an individual manner, but collectively? A firm's records are useful as a guide to cost estimating, but the records of a group of firms, or of many firms from different parts of the country, would be still more valuable in proportion to their number. Our suggestion is that millwork firms should co-operate, as some of the successful ones have done in the United States, and form a cost information bureau, similar to one which has been doing a successful business in the United States, at Chicago, for the past two and a half years. This bureau, known as "The Millwork Cost Information Bureau," is a co-operative institution—carried on without profit, formed originally by a dozen firms who have established an office to which all available information upon costs of millwork production is furnished by each member. Skilled cost accountants are employed to assemble this information, and it is then furnished to members in workable form. The information thus obtained is so complete that when a new member joins the Bureau it is possible, no matter how peculiar his line of business may be, to install in his plant a system, simple in its details, which enables him to know from that day forward just how he is getting along, and

places him immediately in the class of scientific and successful business men.

The problem in Canada is identical with that in the United States. It is simply a matter of getting together on the proposition; deciding to try it out; employing a small staff of cost accountants to commence with; furnishing them with all information available as to costs on each line of product, and having them prepare a basis for figuring the average cost for each line. It would surprise most of the firms taking part when they learned to what simple proportions most of their intricate estimating problems could then be reduced, and it would relieve them of their most distressing obstacle to successful and pleasant business operation.

How Operating Costs Have Advanced

Many of our present-day troubles are set down to the account of the high cost of living, but in reality the expense coincident with the business of keeping alive these days is only an effect, not a cause. It is not worth while to attempt to trace back this effect to its original causes; in fact, it would be a difficult matter to get at a really definite set of first causes, but when one hears some unfortunate consumer complaining bitterly about what he has to pay and attaching the blame improperly to a manufacturer or a distributing firm which happens to be innocent of any offence, it is natural to side with the accused and try to straighten things out in the consumer's mind. A few days ago we had a talk with a man who, when he heard that we were concerned with the lumber business, opened fire at once with criticisms regarding "lumber barons." "Where is your mill?" was his first question, followed by a suggestion that lumber manufacturing was a fine business to be in these days, when good, big orders, at fat prices, were coming from governments every day. Thereupon we, and one or two wholesalers who happened to be in the group, commenced to educate the accuser and show him that the manufacturer of lumber was not making the good thing out of his business at present that some of the public seemed to imagine.

It is simply a matter of setting forth a few of the facts in connection with the cost of operation to make a clear case for the man who is engaged in producing lumber. Everything that he has to pay money for in connection with his business costs a great deal more than it did a year ago. During the early days of the war the costs of some of the important lines of supplies for a camp did not advance to the same extent as many other things, but last fall, when the manufacturer, or logger, went into the woods he had to face a set of conditions such as he had never experienced before.

As an illustration of this fact it is sufficient to note the analysis of the cost of producing spruce in New Brunswick, which is published elsewhere in this issue. The spruce case is typical of all others, though the advanced cost of production is said not to be so great as in connection with the output of mills producing white pine, hemlock, or hardwoods. As to this, we are gathering information from other districts, and expect shortly to be able to present the facts definitely. Take the case of spruce, however. Commencing with the woods operations, the men in the New Brunswick camps during the past winter were getting from $35 to $40 a month and their keep, and were not capable of turning out as much as those who were engaged during the winter of 1915-16, at wages of $28 to $32. Costs of supplies for the men and horses have advanced greatly. Early in the fall of 1916 they were considerably higher than in the fall of 1915, and, as the winter advanced, the prices increased all along the line. It is important to note that these advanced costs of labor and supplies in New Brunswick did not commence to have any considerable bearing upon the situation until 1916. The middle of the winter that has just past found everything much more expensive, and if conditions continue as they are to-day it seems probable that next winter will witness a far greater advance in operating costs than has ever yet taken place. Of course it is a long way yet until next winter and many things may happen before that time to restore matters to a more normal level.

It will be seen from our article on spruce that much of the increased cost of production to-day is accounted for by the advance in the cost of browing logs, which is conservatively estimated at $2 per thousand feet more than the cost of a year ago. This, however, takes little account of the probable increased cost and difficulty of manufacturing at the mills during the present year, which will have to be carried on in the face of increased labor expense and shortage. So many conditions are aggravating the mill operations in New Brunswick today that it is impracticable to attempt any estimate of the operating cost. It is sufficient simply to refer to the fact that labor is unprecedentedly scarce and expensive; shipping facilities are badly deranged; export markets are restricted by expensive ocean freight rates, government import prohibitions, railroad embargoes, etc., and home markets are disturbed by many of the same factors. The only thing that seems to be at all certain at present is that the output of the New Brunswick mills this year will be produced at a considerably higher manufacturing cost than that of a year ago.

Russia Developing Great Lumber Producing Capacity

According to a report from the Canadian trade commissioner in Russia, the government and the lumber industry of that country are making great preparations for developing the timber wealth of the country, with a view particularly to being ready for the trade developing out of the rebuilding of Belgium and France. The forest wealth of Northern Russia is one of the greatest undeveloped assets of the empire. In the Governments of Archangel, Vologda, Olonetz, Viatsk, and Tobolsk there are some 243,000,000 acres of almost untouched forests of commercial timber, exploitation of which has now become an economic necessity in order to improve Russia's adverse balance of trade. Conferences have taken place between representatives of the government and of the Northern timber exporting firms and sawmill proprietors in order to promote the development of these resources. The ministry estimates that it will be possible to obtain an annual cut of 20,000,000 logs, or approximately 1,000,000 standards of sawn goods. Such an extensive annual cut could scarcely be handled by the present sawmill capacity, and it is proposed to increase the equipment of the existing mills and erect many new ones; also to establish other industries using wood as a raw material, so that as little as possible of Russian timber will be exported in an unmanufactured state. Canada is interested in this development, on account of the competition which it may produce for Canadian exporters, and also on account of the important markets for sawmill equipment which will be developed.

British Columbia Reorganizing Its Forest Protection Service

It is announced that the Government of British Columbia intends to adopt new methods of administering its forest protection service. Work west of the Cascades is to be in charge of a board of five members, two being lumbermen selected by the British Columbia Lumber and Shingle Manufacturers' Association. East of the Cascades there will be a similar board, two being lumbermen selected by the Mountain Lumbermen's Association. The three others members of each board will be the Deputy Minister of Lands (chairman), the Chief Forester, and the Forester in charge of fire prevention. The lumber representatives appointed are as follows: Coast—Messrs. E. J. Palmer, Victoria Lumber and Manufacturing Company, Chemainus, B.C.; M. D. Rector, International Timber Company, Vancouver. Mountain—C. D. McNab, Baker Lumber Company, Waldo, B.C.; Neale Murray, Arrow Lakes Lumber Company, Kamloops, B.C. These boards have already held their first meetings and arranged for a number of changes in the methods of securing men and carrying on the patrol. Some 65 assistant rangers will be required to replace the 163 forest guards employed last year. Each assistant ranger will be offered six months' employment at $100 per month and travelling expenses, with re-engagement for six months each year and a prospect of an advancement according to merit.

New Brunswick Spruce Production Costs

An Analysis of Operating and Selling Expenses Based on Actual Mill Reports—The Manufacturer's Reasons for Asking Higher Prices

A remark that is heard with great frequency nowadays has reference to the greatly increased cost of operation in the woods and of manufacturing, piling, and selling lumber. For many months past it has been common talk that during 1917 the lumber manufacturer will require a considerably higher price for his product than during 1916, if he is to come out even. From all parts of Canada this situation is reported, due in large measure to the scarcity of labor and to the high cost of provisions and supplies generally for camps and mills, to say nothing of the unprecedented difficulties in making shipment. In spite of the fact that everyone has realized this situation to a greater or lesser extent, one occasionally hears from a consumer, or even from a retailer, a complaint that the manufacturer is exaggerating the case. Human nature being such as it is, possibly some manufacturers may be guilty of such a charge, but undoubtedly at the present day the situation is very definitely along the lines indicated, and the production of lumber is accompanied by much higher costs than have ever been the case before. The exact proportions of the increased operating costs are difficult to determine, as operators in different parts of the country find conditions varying according to their particular labor and supply markets. In order to place the matter as definitely as possible before our readers, we have made enquiries regarding the cost of production in some of the more important manufacturing districts and are preparing articles for publication, which will give as definite an idea of the situation as it is possible for us to obtain. Commencing with the production of spruce in Eastern Canada, we have taken the New Brunswick situation, and the results of our enquiries are embodied in the following compilation of the information which we have secured.

Cost of Spruce at the Mill Pond

The gross cost of spruce logs at the mill pond for the present year, according to our information, works out at about $19.65 per thousand, while for 1916 it would have been about $2 less. It is rather a difficult matter to analyze this increase of $2 per thousand feet. It seems to be the general opinion, however, that most of it is found in the cost of browing the logs. A year ago the operators in New Brunswick had not yet got into the period of high costs. Men's wages were cheap, so far as logging was concerned, during the season of 1915-16, and ranged from $28 to $32, some being as high possibly as $35. Moreover, during that season there had not yet developed any appreciable advance in the cost of supplies required in the woods for feeding the men and horses. Such advance as existed was so slight that the decrease in wages as compared with the 1914 season would offset it. In the fall of 1916, however, the wages of men in the woods had increased, and were from $35 to $45. Even at these figures it was difficult to secure a sufficient number of men, and the quality of labor was not so good as that of the men obtained a year previous.

Increased Cost of Provisions

The cost of provisions during 1915, at the time when the men were going into the woods, as compared with 1916 is shown in the following table:

	1915.	1916.
Mess pork, per barrel	$24.50	$34.00
Clear pork, per barrel	25.50	33.50
Plate beef, per barrel	21.50	28.25
Flour, per barrel	5.50	9.25
Lard, per-pound	.11	.17
Codfish, per 100 pounds	4.00	6.00
Molasses, per gallon	.40	.60
Oats, per bushel	.53	.72
Hay, per ton	15.50	15.50
Beans, per bushel	5.00	6.50

It will be noticed that the only article which did not show an increase in price at that time was hay. It only requires a glance at these prices to understand how the cost of the logs had been increased. The comparison is for prices during the months of September. A little later on, however, in 1916, pork and beans advanced still further in price, and before the operations were over, mess pork was costing $40.50 per barrel, clear pork $41.50, plate beef $32, cod fish $7.50, and oats 81c. All these extra costs had to be provided for, and increased the cost of the logs.

In order to arrive at the cost of logs in the mill boom, it is necessary to take into consideration a number of factors, including government stumpage, mileage, cost of cruisers, fire-ranging, surveys, and interest on investments. These total up to about $3.25, and the cost of driving, rafting, and running the logs to the mills is in the neighborhood of $2.50. The actual cost of woods operations up to the point of browing the logs has been $7.60 during the winter that is just past. Adding these three figures together, we arrive at the total cost of the logs in the mill booms, viz., $13.35.

The above analysis of costs refers, of course, to logs secured by the firm doing its own operating. Logs purchased, which have been cut on private lands, have cost the mill manufacturers $12.50, $13, and in cases $13.50 on the landings, and to this cost there has to be added at least $1.50 before the logs reach the mill boom. This would be for a short drive, and the cost would increase with a longer drive. Therefore, the cost at the mill booms, which we have mentioned above, viz., $13.35, is probably the lowest on which one can reasonably base an analysis during the winer of 1916-17. Undoubtedly considerable quantities of logs will be cut up at New Brunswick mills this year which have cost still more.

Manufacturing and Marketing Costs

The cost of sawing, including upkeep of a mill, with interest on the mill investment, figures out at about $3.60 per thousand feet. Piling, insurance, and handling amount to 90c. Office management, interest, selling costs, and discount add another dollar. This brings the cost up to $18.85. It is necessary, also, to take into consideration the loss between the log survey and the mill production, which figures out at about 80c per thousand feet. New Brunswick operators from whom we have obtained opinions on this subject state that they cannot get their logs to saw out the New Brunswick log survey, which includes culls and better.

In tabular form the information regarding costs which we have given above appears as follows:

	Per M. ft.
Stumpage, mileage, etc	$3.25
Browing	7.60
Driving, rafting, etc.	2.50
Sawing mill upkeep, etc.	3.60
Piling, insurance, and handling	.90
Office and selling costs	1.00
Log under-run	.80
Total	$19.65

The Marketing Situation

The market situation to-day is a very difficult one to discuss on account of the transportation problem. At present embargoes exist at nearly all the points in the United States to which lumber can be shipped, and shipping by rail in any case is a very slow way to get clear of the output of the larger mills. Shipping by water to the United States is also difficult at present. This was the case last year, also, and it does not look as though it is likely to be improved during 1917, although there is a possibility that the submarine menace may induce schooner owners to go into the coastwise trade instead of the trans-Atlantic trade, which would afford some relief.

The situation in Great Britain in connection with New Brunswick spruce, according to advices received by New Brunswick manufacturers, is that the English merchants are desirous of making purchases, but at present cannot see their way clear to taking the risk upon freights. They are at liberty to negotiate sales for forward shipment, but before completing a contract must obtain a license from the director of timber supplies. On sailing vessels, however, there are no restrictions. Recent reports tell of some sailing vessels that have been chartered from St. John and Halifax for Great Britain at 410 shillings per standard.

There is considerable discussion in New Brunswick regarding the outcome of the present year's operations—that is to say, in regard to whether the British Government will be an extensive buyer. The general belief is that the stocks produced in New Brunswick during 1917 will eventually be taken over by the British Government on an f.o.b. basis, at a price that will be satisfactory to the mill men.

Present indications are that the United States market will continue strong and will absorb all the small stocks. New Brunswick manufacturers expect that Quebec logs this year will go very largely into pulp. If this is the case, the market for spruce will be relieved of a large quantity of stock that usually comes upon it in the form of deals.

A London cable announces that Col. J. B. White has been appointed a deputy to Lord Lovat in directing forestry operations in France. Col. White, who was formerly connected with the Riordon Pulp and Paper Company, raised two forestry battalions in Canada.

Spring Clean-up Prevents Lumber Fires

Insurance Costs Reduced by Precaution—Important Measures for Removing Dangerous Conditions in Lumber Yards and Plants

Cleanliness is not the only object in view in an annual spring clean-up. In business, as in the home, a clean-up each spring makes everything more pleasant and reveals many important things that had been lost sight of. At the same time it is an important means of reducing the risk of fire.

A spring clean-up is essential in connection with all kinds of lumber plants. The insurance companies realize this, and bring it forcibly to the attention of lumbermen. E. D. Hardy, attorney for the Canadian Lumbermen's Insurance Exchange, Ottawa, in a circular to lumbermen on this subject, gives the following practical advice:

CLEANLINESS

All chips, sticks, and rubbish of all kinds should be removed, and the driveways and alleys kept absolutely free from inflammables which might furnish material for the start of a fire. Cleanliness is as important in a lumber yard as inside buildings. The yard should be kept free from grass which, when dry, could spread a fire.

EXPOSURE AND INCENDIARISM

The importance of these hazards is shown by the fire record, which assigns over 81 per cent. of the fires to exposures and incendiarism. Yards should be entirely surrounded by a 10-ft. fence, preferably of tight boards. One or two lines of barbed wire should run along the top of the fence.

Special attention should be given to locomotives if the yards adjoin railways or have side tracks. Frequent cleaning of the spark chamber and the maintenance of spark arresters in perfect condition should be required.

It is a good plan to wet down the lumber in anticipation of known immediate exposures, such as the celebration of May 24th, the presence of fires in the vicinity, expected incendiarism, or lawlessness.

CHEMICAL EXTINGUISHERS

The efficiency of this form of protection cannot be overestimated if proper attention is given. Chemical extinguishers should be recharged once a year, and the date of the last recharging should be plainly indicated on a tag provided for that purpose. If you have not examined the contents of your extinguishers since the cold weather, special attention should be given them, in order to put them in condition to render the best service when they are most needed.

WATER CASKS AND PAILS

Since all fires are the same size at the start, a pail of water at the inception of a blaze is equivalent to a whole fire department fifteen minutes later. This form of protection is comparatively inexpensive, and should extend to all parts of your plant.

If pails are taken from the water barrels for other than fire purposes they should be kept in place by a stick run through the bale of the pail and securely fastened at either end of the rim of the barrel. This will help to keep the pails in place and will not prevent their use in event of fire. An extra supply of pails should be kept at some central point which can be brought into service if required.

STAND-PIPE AND HYDRANTS

All hose should be tested at frequent intervals and defective hose should be destroyed to prevent confusion and loss of time in event of fire.

Nozzles should be attached to hose and the hose in turn attached to the stand-pipe and either folded on shelf or arranged in such manner as to furnish immediate protection.

NO SMOKING

Smoking should be prevented or regulated. It causes 8 per cent. of the lumber fires.

WATCHMEN AND CARE

Incendiarism can be largely prevented by good patrol service and well-trained watchmen. In large yards in thickly-populated districts night watchmen should be maintained; also day watchmen on Sundays and holidays, especially Victoria Day.

Observance of these precautions will result in a reduction of fire losses and a lower insurance cost to every lumberman.

Losses in lumber yards are either comparatively small or very large, showing a distinct difference between yards under protection and those without watchmen or means for fire-fighting. Fires in lumber yards in the latter class often result in total losses.

The large losses are mostly due to the lack of fire-fighting apparatus and delay in discovering the fire. Insufficient separation of the piles has also been an important factor in large losses.

At the start lumber fires are easily extinguished. Prompt discovery and ready means of extinguishment can reduce the losses materially.

High winds are a serious menace in case of fire. Sites for lumber yards should be selected where the wind exposure is light. The lumber should be piled so the principal driveways are at right angles to the directions of the prevailing wind. Wind-breaks of boards or trees are valuable.

CAUSES OF LUMBER YARD FIRES

A summary of the fire record of lumber yards collected by the National Fire Protection Association is given herewith. It does not include losses in small retail lumber yards in cities and towns, but the larger ones are included. Only known causes are considered in the percentages. This interesting record shows the relative danger of the several agencies contributing to the fire waste, and emphasizes the importance of attention to the spark hazard during the summer months:

Exposure.	Per cent.
Locomotive sparks, 27.0; other exposure, 16.2	43.2
Incendiarism	38.0
Smoking	8.0
Lightning	5.4
Stoves in offices	2.7
Oily rags and waste	2.7
	100.0

The large percentages due to exposure and incendiarism show a fruitful field for the reduction of losses.

EXPOSURE

Gates and doorways should be kept locked where possible. If adjoining public streets it is doubly important that the fence be tight and secure.

Chimneys and stacks located near lumber yards should be provided with sparks-arresters and refuse-burners should be equipped with double screen and perforated water-pipe at the top, if necessary, to reduce the danger from sparks.

PROTECTION

Hydrants.—Where a water supply is available the yard should be equipped with frost-proof hydrants fed by cast iron pipes not smaller than 6 in. for lines not over 300 ft. long, and 8 in. for lines not over 800 ft. long. Hydrants should have at least two outlets, and be placed not over 400 ft. apart each way. Where water pressures are low the pipes should be larger and the hydrants more closely spaced than where high pressures are available.

The pipes may be supplied by public water, large elevated tank, or by fire pumps.

Hose.—Most of the hydrants should be covered with a standard hose house, equipped with hose, play-pipes, and other approved apparatus. In large yards a hand hose cart carrying the main supply of hose and appurtenances can be kept at the yard entrance or other convenient place for accessibility to all parts of the yard.

Sometimes monitor nozzles fixed to working platforms about 15 ft. high are used to protect lumber yards, but unless a very liberal water supply is available hose and hydrants will prove more efficient.

HAND APPARATUS

Chemical fire extinguishers holding about 40 gallons, mounted on wheels, are very effective for small fires, as they can be handled by one man, provided the driveways are kept in good condition.

Small hand-carts carrying four to ten 2½-gallon chemical fire extinguishers constitute a good means of protection. In small yards the 2½-gallon chemicals can be kept distributed about the yard.

Fire pails and water barrels well distributed should be provided, one cask with three pails being provided for each 5,000 square feet.

FIRE BRIGADE

Employees should be organized into a fire brigade and drilled in the use of the fire apparatus.

FIRE ALARM

Where there is a public fire alarm system a box should be located at the yard. In extensive yards auxiliary boxes should be provided.

The British Columbia Government are taking steps to bring to the attention of the Prime Minister of Great Britain the advisability of removing restrictions upon the import of British Columbia lumber. The Premier of British Columbia has stated that he believes the restriction upon imports of British Columbia products will be removed.

Ontario Retailers Favor Association

Benefits of Co-operation and Organization Appreciated by Many Firms—Advantages Outlined in Letters from the Trade

The Canada Lumberman, at the request of a few prominent retailers recently addressed correspondence to about one hundred retailers in Ontario, asking for their views in regard to the advisability of organizing an Ontario Retail Lumbermen's Association. While the response to this letter was not very extensive, a second letter brought out a number of replies, indicating that there is quite a considerable feeling among the trade in favor of such a step. That an association of Ontario retailers would be a benefit to the trade is beyond question, so long as it is taken up with enthusiasm and worked along the successful lines that have already been adopted both in the prairie provinces of Canada and in the United States. In order to place the matter before the Ontario trade in definite shape, and to let them know how the suggestion is viewed by those who have replied to our enquiries, we publish below the important portions of the replies that we have received.

Much Good Would Result

Editor Canada Lumberman:— Burlington, Ont.

I have read carefully the article in a recent issue of the Canada Lumberman under the heading "What is the Matter with Our Retailers?" Now I do not think that there is anything seriously the matter, only that the retaailers are not brought together. I have no doubt that an enormous amount of good could be done for the benefit of the retail business of Ontario if the retailers would only get together and exchange ideas and figure out among themselves what it actually costs to do business, etc. There are several other important things in connection with the trade that could be accomplished if the retailers could be brought together. Anything that has been done and can be done in the United States and Western Canada, along these lines, can certainly be done in Ontario. I am in strong sympathy with the idea, and if I can be of any assistance in bringing about the desired state of affairs I would be only too glad to help.

Mr. Glenday, of the McLaren Lumber Company, in the letter which you published, has only mentioned a few of the many items that the retail lumbermen would have to deal with if they intend to keep their business up to the standard of other lines of business in this province. There is certainly much that would have to be done and that can only be done by an association. We are ready at any time to give what assistance we can, but expect, of course, that some of the larger dealers will make the start. It occurs to us that if a few of the most enthusiastic dealers would get together and talk the matter over they could draft out a plan, and, by sending this to the various retailers, probably 75 per cent. of them would take it up. A. S. Nicholson.

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The Sort of Thing That Is Needed

Editor Canada Lumberman:— Brockville, Ont.

We think that the idea of forming an association of Ontario lumber dealers is a good one. An association of this kind would give the yard men a chance of getting together and appreciating each other better, and the result is bound to be good for the business as a whole. Anyone who has kept in touch with the successful results of such associations in other trades will recognize that this is just the sort of thing that is wanted in the lumber business, and if there is anything we can do to help, kindly let us know and we will do the best we can.—The McLaren Lumber Co., Ltd., Frank Glenday, manager.

* * *

Would Like to Help

Editor Canada Lumberman:— Toronto, Ont.

We are heartily in accord with your views in regard to the formation of an Ontario retail lumbermen's association, as we believe that such an organization would be a great benefit to every lumber dealer. We will be pleased to join in with the other dealers and to do all we can to make it a success.—R. A. Rastall & Company.

* * *

Heartily in Favor

Editor Canada Lumberman:— Hamilton, Ont.

We believe that an Ontario retail lumbermen's association, such as you have mentioned, would be a good thing for the trade, and that it could be made of much benefit to its membership, which should include everyone in the business. We are heartily in accord with the principles and objects which should be the basis of such an organization, and we will be glad to co-operate. —Patterson-Tilley Company.

Much Good Work Could Be Done

Editor Canada Lumberman:— Tavistock, Ont.

Undoubtedly there is a great deal of work that could be done by an Ontario retail lumbermen's association, particularly in forming standard grades, etc., as this is one of the many difficulties that we have to contend with in purchasing lumber. There seem to be no two mills which grade their stock in the same manner. So far as our retail business is concerned, it is a small item, as our territory is very small and limited. If it were possible to maintain a better standard of inspection, etc., such an association might interest us in our purchasing department for lumber for boxes and we would therefore be interested in receiving further information on the subject.—Zimmerman Bros.

* * *

Knows the Advantages of Co-operation

Editor Canada Lumberman:— Paris Station, Ont.

I believe that an association of Ontario retailers would be interesting and profitable, if the retailers would take an interest in it and attend the meetings. In our case, having some other lines such as coal, groceries, etc., I know of the advantages of association work. We have associations in connection with some of these lines and hold good conventions. The retail coal men have a purely coal convention which is profitable, instructive and interesting. Outside of the cities, lumber dealers have other lines which they handle, particularly coal. Whether, having other conventions each year would be a difficulty in connection with a lumber convention, I could not say, but perhaps this would not necessarily be the case.—Geo. E. Taylor.

* * *

Would Be of Great Value

Editor Canada Lumberman:— Kitchener, Ont.

We are of the opinion that an association formed of Ontario retailers would be of great value to us. Speaking from our own standpoint, the outside manufacturing wholesalers are coming into our vicinity and supplying the consumers with the material that they require with absolutely no expense to the outsider. We are here with a large investment and a heavy tax and have to stand idly by and see these people doing business.

It would also, we think, be a good thing to have a stated price for the staple commodities, especially in the district we belong to, and in a great many other ways we think it would be a move in the right direction to form an association without delay.—H. J. Hall & Son.

* * *

Invariably Beneficial

Editor Canada Lumberman:— Tillsonburg, Ont.

We have had a good deal to do with associations in various lines of business and have invariably found that the meeting together of men in the same line of trade has been very beneficial. There are a lot of questions in the retail lumber trade, and particularly in the manufacture of interior trim and fittings, that would stand free discussion. We refer to wages, credits, profits and costs. It is doubtful if any two shops estimate their costs in the same way. It is doubtful if any two shops work on the same basis of profit or anywhere near the same basis. It is doubtful if any two shops agree on their overhead charges, and probably most of us pay all too little attention to "overhead."

A discussion of these subjects would undoubtedly prove of great benefit to all concerned.—The Tillson Company, Limited.

* * *

A Step in the Right Direction

Editor Canada Lumberman:— Newmarket, Ont.

I assure you that I am very much of the opinion that it would be a good thing to form an association of Ontario retail lumbermen which would enable them to meet together and, if nothing else, to become known to one another as friends instead of enemies, which is unfortunately too frequent at present. This is largely due to the trade carrying tales from one yard to another. Then again, some of us who are selling lumber at less than it costs to handle it will see ourselves as the other yards see us and we will be taught the lesson that what others are doing we ought also to be able to do. If an association can be formed I am sure it will be a step in the right direction.—W. H. Eves.

* * *

A Good Thing for the Trade

Editor Canada Lumberman:— Toronto, Ont.

In our opinion it would be a good thing for the trade at large if an Ontario retail lumbermen's association were formed, but of more benefit to dealers outside of Toronto who at present have no arrangement for getting together either socially or otherwise. We think it is a good idea for merchants in any line of business to get together frequently to discuss matters pertaining to that business, and this can only be done by forming an association.—Gibson, McCormack, Irvin Company, Limited.

Would Be Glad to Co-operate

Editor Canada Lumberman:— Galt, Ont.

We think the formation of an Ontario lumber dealers' association would be a good thing, and we would be willing to co-operate with you in getting dealers together.—The Galt Lumber Company.

* * *

An Association Necessary

Editor Canada Lumberman:— Brantford, Ont.

We think the formation of an Ontario retail lumbermen's association for bringing the trade together and enabling them to co-operate is a necessity and has been so for a long time. In the past we have found that there is not enough confidence among the dealers, and if a good number can be brought together and shown what good would result, the association would go ahead very satisfactorily. We are ready to fall in line and help at any time.—Mickle, Dyment & Son.

Result Would Be Good

Editor Canada Lumberman:— Winchester, Ont.

We think that much benefit might result from the organization of an Ontario retail lumbermen's association. Probably there should be an eastern and a western branch in order to save travelling expenses of delegates or members. We might not be able to devote much time to it, but would be disposed to do what we could.—M. F. Beach Company, Limited.

* * *

Would Like to Help

Editor Canada Lumberman:— Sudbury, Ont.

We would certainly do all we could to help in the organization of an association of Ontario retail lumbermen. As the McLaren Lumber Company have covered most of the points in the letter which you published on this subject, there is very little for us to say, but we will give all the assistance we possibly can.—The Laberge Lumber Company, Limited.

The Retailer and the Farmer

Holding Trade by Personal Service

By John H. Cowley*

In these days of special activity on the part of co-operative farm clubs and farmers' lumber yards, and a growing disposition on the part of farmers generally to take over the retail business of the community into their own hands, it is not out of place to study carefully conditions as they apply to the farmer and the retail lumber yard.

This is indeed a serious problem with the country yards, where the larger per cent. of our business comes from the farmer. To hold our farm trade in line and to secure the farmer's business means success; to lose this trade means failure.

In spite of all the outside influences that have been brought to bear upon our farmer customers, we have always been able to hold our farm trade in line. Only a small per cent. of it has gone to the mail order people, and this because we did not know that the customer was in the market for the stock until after the order was placed.

Ours is an old-established yard, and many of our farmer customers to-day are the sons and grandsons of former customers of this yard. Our best customers are farmers who have been trading with us for ten to thirty years. The average farmer of to-day is honest, a careful trader, and, under normal conditions, a man who dislikes to change his established habits and customs. Especially is this last assertion true as regards his place of buying his merchandise.

The first general proposition is to know your farm trade intimately. Get well acquainted with your farmer customers; call on them on their farms when possible, and seek to understand each individual. There is no fixed rule for holding your farm trade, and you must treat with each individual as occasion demands. For example, one customer wants cheap stock, with no regard for quality; to undertake to sell him high-grade stock will end in the loss of a sale. Another customer wants the very best stock obtainable and is not so much concerned regarding the price, and a failure on the part of the manager to meet these conditions again loses the sale and the customer as well. Again, it is the little things that count and go a long way toward solving the problem. We have farmer customers who object to receiving a statement; to send them a statement would be to lose their trade. These farmers are our best customers and pay their accounts regularly. We have farm customers, rich and independent, who insist upon paying their account only once a year. This is their idea of a satisfactory business connection. To refuse to meet their demands in this particular would be to drive their trade away from your yard. We, therefore, accommodate this class of trade, knowing that they are reliable and that the account will be met promptly at the end of the year. However, we make the price consistent with the terms, and everything is satisfactory to all concerned. There is another class, and here the intimate acquaintance of your customer stands in good play; this class will not buy anything without a reduction being made on the price quoted. We have several customers of this character, and when they come to us for quotations we invariably quote them at a higher price, and, in the end, sell them at the regular price. This may be considered a poor business policy by some, and a deception, but we sell the goods at our regular price, our customer is satisfied, and we cannot see that we have gone far wrong.

Another thing that is essential to the satisfactory conduct of your farmer trade is to avoid any misunderstandings with them as regards stock or accounts. In making a sale, if possible, be sure your customer understands all of the terms and conditions; find out just for what purpose the stock in question is to be used, and sell him only such stock as will best suit his needs. Thus it is sometimes necessary to ask your customer some very personal questions in order to protect yourself from future trouble, for the better you understand each other the less chance theer is for confusion and disagreement. In case of dispute—and in spite of all the manager can do these will come—see to it that your customer is fully satisfied with the settlement. This may involve some loss on your part, but in the end it will be money well spent. The average farmer is clannish and slow to forget, and once let him harbor a dislike for you over what he considers an unjust business transaction and he will lose no time in seeking to injure your business with his friends and neighbors, no matter how unjust or wrong his position may be. Thus the necessity of a satisfactory settlement of every dispute is readily seen. The writer was reared on the farm, and followed farming as an occupation for several years. It is not every yard manager that understands the farmer thoroughly or is in sympathy with him. It is a big help to a manager to know just what material is best suited for the farmer's needs and to be able to get his viewpoint when talking to him about material for the farm.

There is in nearly every farming community some prominent farmer who is a leader and an adviser for the balance of the neighborhood, and who is looked upon by his neighbors as authority on all matters of business. It is worth while for the local lumberman to be informed as to this and to be found in favor with the "powers that be." We recall a certain community in our territory in which there is a church having a membership of considerable size and influence. The ranking elder not only looks after the spiritual welfare of his members, but also instructs them where they should buy their lumber and building material. We can always tell by the attitude of this good elder toward our yard just about how much of the business of his congregation we are to receive. The same thing applies to families. We have several large families in our trade territory, and it is a fact that some one member of each family to a large degree controls the buying of all.

Abuse is another factor that has no place in the retail yard in its dealings with the farmer customers. What if one of them occasionally strays from the "straight and narrow way," as it were, and sends to the mail order house for a few windows or a shipment of shingles. Usually he has his reward in the quality of the stock sent him by the m. o. people, and he feels bad enough about the matter as it is. It is much better to let the matter pass unnoticed or treat it as a joke than to offend your customer by referring to it. With the good-will of the farmers of your community your success in the lumber business is in a large measure assured; while the manager who has the ill-will of the same customers will find it hard work to make a satisfactory showing. A little flattery is much better than abuse, and a smile is better than a frown with the average farmer customer. Conditions will never be just what we managers would like to have them in the retail yard, but they can be vastly improved if we do our full part by our farmer customers. Too many of us are perfectly willing to sit down and trust to luck for improved conditions. The thing we ought to do, and the thing we must do, is to get out and improve conditions where improvement is needed. We are the makers of our own destiny in the success or failure of the retail lumber business. We who are fortunate enough to be located in farming communities have great opportunities, for, after all is said, the problem of a satisfactory business relation with our farmer customers will only be solved by a full and free co-operation with them and a mutual understanding of all the vexed questions which we encounter. That it is our duty to take the lead in these matters no one will deny. Why wait until the business has been given to the mail order people and then seek to justify our position?

*Reproduced from the St. Louis Lumberman.

The Timber Import Trade of Australia

Lack of Co-operation and Foresight Have Resulted in Canada's Failure to Secure Her Proper Share—How to Remedy the Situation

An extensive report on "The Timber Import Trade of Australia," by H. R. MacMillan, has been published by the Department of Trade and Commerce. This is the last of the reports submitted by Mr. MacMillan in connection with his recent trip around the world as Canadian Special Timber Trade Commissioner.

In the preface to the report Mr. MacMillan says:—

The serious decline of Canada's share of Australia's timber imports would at any time demand attention. That this loss of trade in raw products between two neighboring British Dominions should occur at a time when Imperial sentiment is strengthening, when the move for closer Imperial trade relations is gaining favor, and should be most marked in a trade in which Canada not only possesses all the natural advantages, but in which she has greatly increased her productive capacity during the period of trade, is a matter of serious concern.

Briefly, the chief obstacles over which Canadian timber trade with Australia has stumbled are,—

1. The channels of the trade are non-British.
2. The trade has been driven to death.

Canadian concentration on development of domestic opportunities has been such that no Canadian firms paid attention to building up a trans-Pacific timber brokerage aand shipping business. Such business has been entirely in the hands of what are chiefly United States companies, and naturally they, finding a surplus of timber for export at their doors, found it no advantage to come to Canada for supplies.

Fortunately this condition shows signs of righting itself. Canadian companies, properly equipped to carry on a shipping business, are now entering the field, with results that cannot fail to be of benefit to Canada.

A tremendous overproduction of lumber on the Pacific coast, and the dumping of this lumber abroad under conditions of competition ruinous to many of the producers engaged in it, has resulted for several years from the unorganized state of the lumber industry. The competition has so flooded the Australian market from time to time that Canadian mills have not been attracted to foreign trade. A stronger organization of United States mills is now in effect, which promises to prevent lumber dumping.

The Australian market is a growing one. It will long continue to be second only to the Canadian prairie as an outlet for British Columbia. It possesses an additional importance. Should Canada supply only one-half Australia's timber requirements, she will lay the foundation of a powerful merchant marine on the Pacific, which will in turn exercise a profound influence on the development of her ports and of subsidiary trading and maritime industries.

So long as there lies, across a few thousand miles of water, a sure market and that within the Empire, for all of Western Canada's most conspicuous and superfluous resources, so long should Canadian timber industries co-operate in supporting Canadian exporting and shipping interests to secure that market.

Influence of Native Timbers

Chapter I., which is devoted to a consideration of the influence of native timbers on the Australian market, says:—Australia has, up to the present, furnished the most important overseas market available for the forest products of the Douglas fir region. The total exports of lumber (almost wholly Douglas fir) from the North Pacific (British Columbia, Washington and Oregon) to Australia during the period 1894 to 1915 inclusive was 2,230,000,000 feet.

Important as this consumption of Douglas fir may have been, it must be regarded only as the prelude to a steadily growing greater demand. During the period referred to, Australia was barely reaching the threshold of her intensive agricultural and industrial development. Meanwhile native forests of Australia and New Zealand have been so reduced by fire, logging and clearing that they are no longer able to supply the needs of the population to the same proportionate extent as formerly.

The yearly imports of Douglas fir in Australia are now equal to the annual consumption of this wood on the Canadian Prairie. Although the Canadian Prairie consumption of Douglas fir may grow more rapidly than the Australian consumption during the immediate future, the underlying prospects for growth are such in Australia that

Discharging lumber at Melbourne docks.

the island continent should ultimately offer a greater market for lumber than may be expected on the Canadian Prairie.

Canada's Position

Subsequent chapters contain much important information regarding the use of timber in Australia, details of imports and the handling of imports. The concluding chapters deal with Canada's position in regard to Australian timber imports, and with the future possibilities of the trade. Discussing Canada's position, the report says:—

It has been evident in every important division of the lumber export trade from the North Pacific coast to Australia that Canadian transactions have been approaching the vanishing point.

The reason for this ignominious condition cannot be sought in natural conditions. So far as native timber could go, Canada is equipped in such a manner as to be able to monopolize the Australian trade without restraining her resources. Millions of acres of virgin forest still stand to the water's edge along hundreds of miles of waterways and shore front plentifully supplied with habors.

The cause for Canadian decadence in the lumber export trade must be sought in the influences affecting the channels of trade rather than in lack of the natural advantages and resources with which to maintain exports.

Briefly the chief causes for the decline of Canadian trade are:—

1.—Canada has not now so great a proportion of the exporting mills as was the case in 1894.

About 1894 when 35 per cent. of Australia's imports of lumber from the North Pacific came from Canada about 50 per cent. of the export lumber producing mills were in British Columbia. The more advanced development and greater population and wealth of the United States has led to a more rapid increase in export mill building in that country than in Canada. The result is that Canada now has but fifteen per cent. of the export mill capacity of the Pacific coast. It should be borne in mind, however, that this fifteen per cent., concentrated on export business, could fill all Australia's demands.

2.—Canadian mills when the export trade changed from sailers to steamers, did not keep pace with the United States mills in equipping themselves for the new type of business.

Steamers Replace Sailing Vessels

The export trade, when Canada did an important share of it (prior to about 1900) was almost exclusively carried on in sailing vessels. Sailing vessels in 1894 carried about 78 per cent. of all North Pacific overseas lumber shipments. Sailing vessel cargoes were small units, easily marketed. It was not beyond the ability of a sawmill company to charter sailing vessels months ahead, speculate in several trip charters and dispose of the cargoes c.i.f. Sailers were loaded at the rate of 50,000 to 150,000 feet daily, rarely the latter figure. A sawmill could take several sailers on, closely following one another without requiring great storage space or running the risk of demurrage. Further, a whole sailing cargo was not too great a contract for the overseas purchaser who could and did buy in cargo lots.

Up to 1895 ninety-five per cent. of the lumber exports from the North Pacific coast were carried in sailers, but from that date the sailer gradually passed out as a lumber carrier to Australia, and by 1914 only 28 per cent. of all the overseas business was in sailers. Australia in 1913 took nearly the whole of her imports in steamers.

Although only 28 per cent. of the Douglas fir exports from the North Pacific coast were carried in sailers in 1914, in that same year 65 per cent. of the lumber exports from Canadian mills went out by sail. The conclusion to be reached is that although the greater part of the trade is done in steamers, Canadian mills are not so well adapted for steamer business as are United States mills, and therefore are so handicapped in competition that they are forced to cater to the small share of the trade still left to the sailing vessels. Australian trade may be regarded as a permanent steamer business. If Canadian mills desire to compete in Australian business, they must be able to give the same despatch as can be secured from any group of mills in the United States.

Steamers entirely changed the essentials of the business. The trip chartering of steamers was too great a contract for single mills; mills could no longer individually control the transportation of their product. Steamers loaded 200,000 to 400,000 feet per day and carried such large cargoes—500,000 to 5,000,000 feet—that the mill could rarely take the risk of assuming responsibility for filling a complete cargo. No mill could risk attempting to fill two steamers arriving together. Further, the foreign buyer could not assume responsibility for nor take delivery of a full cargo.

The mills could no longer deal direct with the Australian or other buyer; the middleman became necessary.

The middleman was necessary to make future freight arrangements, become responsible for charters, divide cargoes between neighboring or co-operating mills so as to ensure delivery, and similarly at the other end through his selling organization, distribute cargoes amongst several buyers.

Unfortunately, when it became necessary that Canadian export mills should develop further organization and equip themselves to

This one alleyway, containing Baltic flooring, is only one of eight similar in size, constituting a Melbourne merchant's stock of Baltic dressed lumber.

handle steamers, their attention was diverted from the export trade by the meteoric rise in the domestic lumber market. The rapid expansion of Western Canada, the equipping of half a continent, all in the space of a few years, with dwellings, towns, cities, railways and public works, more than exhausted the capacity of Canadian mills and led to the importation for a few years of large quantities of lumber.

New mills were built to meet this demand. In their building the prairie was the only market in view and no thought was given to the export trade.

Unfortunately, our competitors in the Douglas fir region of the United States were free during this period with a mill capacity in excess of their domestic requirements, to exploit the foreign market.

U. S. Mills Equipped for Steamer Trade

United States mills were enlarged and equipped to give steamers the despatch demanded by the owners. Mills developed in groups on the Columbia River and Puget Sound, groups that could work together loading steamers of any capacity giving a despatch of 400,000 feet daily.

United States organizations grew up, specializing in lumber buying, lumber transportation and lumber distribution in foreign countries. These companies absolutely superseded the practise of mills engaging transportation and selling direct to the consumer c.i.f.

The Canadian domestic market for lumber has slackened to fifty per cent. of what it was in 1912. The mills still exist, however, that were built to take care of the 1912 demand. These mills are in a bad position. They find the United States exporting companies so strongly in possession of all overseas markets that notwithstanding that the British Empire took in 1914, 64 per cent. of all lumber exported from the Pacific Coast, companies having their headquarters in the United States, in addition to handling all of the lumber exported from the United States, exported in 1913, 69 per cent. of all lumber sent overseas from British Columbia. United States companies absolutely and completely dominate shipments from British Columbia to Australia.

The United States had organized to meet the new demands improved by steamer transportation, and Canada had not.

Canadian mills could not give despatch equal to that given in the United States. Persons responsible for charters fear demurrage in Canadian ports, and therefore prefer, when prices are equal, to place orders in those United States exporting districts where strong groups of mills co-operate in furnishing the cargo.

The mills built in boom times in British Columbia equipped for much remanufacture of lumber for the rail trade are not as economical mills in which to produce lumber for export as are many of the mills in the United States built for a greater dependence on the cargo trade.

3.—Coaling arrangements are not considered by some vessel operators to be as satisfactory in Canada as in the United States.

Many steam cargo carriers undoubtedly come to Canadian ports to bunker. Nevertheless, different important operators of time-chartered vessels in the lumber carrying trade were met who declared that the bunkers and mills on Puget Sound were so conveniently located for rapid despatch that prices being equal, it was more profitable to send vessels to Puget Sound to load than to British Columbia, where, though coal is higher in grade, it is more expensive, and involves a loss of several hours or a day in going to bunkers.

4.—United States ownership of a preponderance of the lumber carrying sailers operates against Canadian interests. A proportion of 28 per cent. of the lumber carried in 1913 was carried in sailers. Tasmania, and occasionally other ports, Brisbane and West and South Australia ports take sailing cargoes in normal times. In 1913, 83 per cent. of the lumber carrying sailers operating from the North Pacific were under the United States flag. All United States sailers ask a freight of 60 cents to $1.25 per thousand feet higher for loading in a Canadian than in a United States port. Such a high differential on a commodity selling at $10 to $12 per thousand feet f.a.s. is prohibitive.

Low Grade Markets Help United States

5.—Control of the low grade lumber markets and during the past ten years greater over-production in the United States domestic market than in the Canadian, has resulted in United States f.a.s. prices being frequently lower than Canadian.

Australia, as constanly pointed out, takes only the high grade portion of the log. Roughly, 60 to 70 per cent. of the mill product must be sold in some other market. The domestic rail market is not great enough to absorb the whole of this low grade. Nevertheless, it has been the only market available to Canadian exporters.

The United States is more favorably situated. United States trading companies have control of the lumber imports of South America and China. These two countries, together with California, which buys chiefly low grade, took in 1913, 78 per cent. of the lumber shipped by water from the North Pacific coast. No Canadian mill participated in these shipments. The possession of these markets for low grade undoubtedly helps many United States mills in making prices for the export market.

Overproduction of lumber has been more serious in the United

Character of hewn Japanese pine logs imported for box material.

States during the past decade than in Canada. The competition thus brought about has frequently led to United States mills underselling Canadian in the foreign markets.

Although the likelihood is that natural causes will shortly produce proportionately as great overproduction in Canada as in the United States, and that prices in the two countries will harmonize, it has frequently been possible to secure lower prices in the United States than in Canada, which has given foreign buyers the impression that the United States is (presumably for unknown natural causes) the only market worth investigating.

6.—Mixed cargoes have been easier to secure in the United States.

It has been the habit of the Australian buyers to have Douglas fir, redwood, clear pine, door stock and shelving come forward in one vessel. Canada has no redwood, and though cargoes are occasionally taken from Canada for which redwood or some other United States product must be secured, buyers in Australia state that when they buy a part cargo of redwood in the United States they find that the influence of the United States exporter supplying the redwood is frequently used to make sure that the remainder of the cargo also is purchased in the United States.

7.—Canada, so far as Australians are concerned, is passing from sight as a lumber exporting region.

The United States has so dominated the lumber exports from the North Pacific that every buyer thinks, talks and acts in terms of United States mills, ports, trading companies and lists. Even the most of the few Canadian exports come forward on invoice forms bearing the names of United States firms. Several old and important Australian buyers did not know that the most famous Canadian mills were not in the United States, and at least one Australian owner of lumber-carrying sailers did not know that two of British Columbia's oldest lumber shipping ports, Vancouver and Chemainus, at which his vessel had loaded, were in Canada. American companies and individuals are constantly visiting the market. Canadian companies and individuals are unknown.

Australian buyers have become acquainted with, and sure of, United States shippers and products. They feel a natural hesitation about depending upon Canada, which the greater number of present Australian buyers now regard as a new source of supply.

8.—Where prejudice exists against Canadian lumber no one is on hand to fight it.

A group of buyers supplying Broken Hill mines have tabooed Canadian lumber for over six years. There being no Canadian exporter represented in Australia, it was to no one's interest to find the trouble and remove it. The Americans represented were just as glad to let Canada's bad reputation stand and sell American lumber. This is a fair instance of the futility of depending upon a competitor to develop and maintain the Canadian export market.

Future Possibilities

In regard to future possibilities, Mr. MacMillan says:—The present condition, of no Australian trade for Canada, is largely the result of lack of co-operation and foresight on the part of Canadian lumber manufacturers. Unsatisfactory as this may be, it will continue unless constructive action supersedes lethargy towards the export market.

The steps it is necessary to take are few:—

1. Canadian mills must be equipped and maintained to give a despatch equal to competitive United States mills. A daily loading capacity for individual mills of 300,000 feet is necessary.

2. A group of co-operating Canadian mills must be formed to act quickly in quoting on enquiries of all classes. Such a group should contain at least three strong mills and preferably as many more as can be secured.

3. A Canadian exporting company should be built up. Canadian manufacturers will be at a disadvantage so long as they quote in the Australian market through United States exporters. Canadian lumber manufacturers should therefore give their best quotations to the first Canadian exporting firm that shows a capacity to do the business.

4. Having proceeded this far, Canadian manufacturers should co-operate with United States manufacturers to control the export market with the object of maintaining a profitable price level, adjusting the grades so that the consumer will get what he can use, and yet will take more of the log, and exploiting the market for Douglas fir and other North Pacific woods.

Other sections of the report, which contain more complete details of trade conditions, will be referred to in a later issue of the Canada Lumberman.

Improved Conditions in Finnish Lumber Trade

Important developments have taken place in the Finnish lumber export trade since the outbreak of the European war. Previous to the war a great number of mills were engaged in the lumber export trade, and the lack of co-operation between these mills caused generally unsatisfactory prices and small profits. These conditions, however, have been changed through a strong selling organization estabilshed in Helsingfors in 1915. This organization now controls about 90 per cent. of the mills engaged in the lumbber export trade. Its purpose is to sell the output of these mills in foreign markets. In the domestic markets each mill sells independently of the export selling union. It is the European markets that are being exploited by this selling union, and favorable results are expected. The prosperity of the industry during the war has greatly stimulated co-operation among exporters.

The branding of lumber has for years been an important feature in the Finnish export trade, and special markets have been obtained abroad for each brand. It is the intention of the selling organization —the Finnish Sawmill Selling Union—to market the products of each mill under its own trade-mark, thereby enabling customers abroad to receive the brands to which they have been accustomed.

It is reported that large stocks are accumulated in Finland, to be placed to the best advantage immediately after the war. This can be done most effectively through the selling union, which is financially strong enough to hold the stock until favorable conditions prevail and need not dump large quantities immediately. It will thereby stabilize lumber prices and prevent the crisis often caused by a sudden drop in the market.

The trend of the lumber business in Finland has also been to amalgamate the smaller companies with the larger ones. Recent reports intimate that important English sawmill and forest interests to the amount of about $10,000,000 have passed over to a large Finnish sawmilling concern. This consolidation of the smaller interests is the most important feature to consider in connection with the expansion of the Finnish lumber export business.

The area of forests in Finland is estimated at 52,000,000 acres, or about 65 per cent. of the area of the country. The exports of lumber products amounted to about $50,000,000 immediately before the war, and are now reported to be 70 per cent. of the total exports.

Similar selling organizations have recently been formed by the lumber exporters in the other north European countries, and some of these countries already had strong export associations.

Shipbuilding Expansion in Canada

Shipbuilding operations initiated in Canada by the British Government through the Imperial Munitions Board are now being vigorously developed throughout Canada. It is understood that at the Canadian Vickers Company's plant at Montreal and on the Pacific ships which were being laid down for Norwegian owners are being taken over in connection with the new British programme. The contracts for these totalled $25,000,000. Additional contracts are now being placed with the same firms. Other firms engaged in new shipbuilding plans include the Canada Steamships Company, the Polson Iron Works of Toronto, Collingwood Shipbuilding Company, the Port Arthur Graving Dock and Shipbuilding Company, and the shipbuilding concerns of Vancouver and Victoria. Representatives of these companies have been negotiating at Ottawa. New large plants on the Atlantic and Pacific coasts are being arranged for, and, in addition to the regular subsidies for dry docks and repair plants already provided for by statute, it is understood that the government has under consideration the granting of a subsidy for the shipbuilding end. A large amount of raw material has already been secured, and options have been taken on more. The material will be divided among the various contractors as the need arises. It may be noted, also, that in the war vote placed by parliament last month there was an item of $17,000,000 for naval defence. The greater part of this, it is understood, goes toward the construction, for the most part in Canada, of coast patrol and other naval vessels.

Commercial craft will be of various tonnage and adapted for various uses. The extent of the orders is limited only by the capacity of the Canadian yards to turn out what is required. The arrangements are under the direction of J. W. Norcross, head of the Canada Steamships, Ltd. The tonnage which it is expected to build in the Dominion in the course of the next two years will probably entail an expenditure of a hundred million dollars. It will take the world some time to catch up to the needs of mercantile marine, even should the war cease at an early date, owing to the great destruction of ocean tonnage during the war, and the present plant for stimulating shipbuilding in Canada look forward to next year's program as well as this year's. Heavy orders are also being placed in the United States.

Captain J. H. A. Acer (244th Battalion), past president of the Canadian Pulp and Paper Association, has left for the front. Prior to his departure he was entertained at luncheon at the Ritz Carlton Hotel, Montreal, by a few of his friends in the pulp and paper trades. Mr. Howard Smith presided. Some informal speeches were made, wishing Captain Acer the best of luck.

Southern Pine Trade Conditions

W. J. MacBeth, Back from the South, Reports Mills Crowded with Orders, But Unable to Ship

Mr. W. J. MacBeth, wholesale lumber dealer, Toronto, returned recently from a three weeks' visit to the Southern States, during which he made a special study of the Southern situation and formed important connections for obtaining stocks for the Canadian market. The most important feature of the Southern situation to-day, Mr. MacBeth said in an interview with the Canada Lumberman, is the number of embargoes now in force upon the railroads against lumber shipments. One of the reasons for such embargoes on shipments to Canada, according to the secretary of the Southern Pine Association, is that Canadian railroads have been unable to take satisfactory delivery of cars at the border, and, when they have United States cars, do not return them. The same official said that the Grand Trunk not only delayed in this way, but absolutely refused to pay the 75c per diem rental upon the cars. Under these conditions, the Southern railways had stopped sending cars into Canada. In fact, they were all up in arms against the Canadian trade.

United States railroads are expecting important improvements in the car service. The better weather conditions are the chief factor in this connection, enabling the motive power to be handled more efficiently and to draw much heavier trains. All the Southern mills are loaded down with orders, which they are not able to ship on account of embargoes on points where the orders come from.

North Carolina firms are getting relief through a commission, made up of railway officials from the different railroads which serve the Carolinas and the Virginias. The commission sits at Norfolk, Va., and receives applications regarding each individual shipment. Any shipments they consider should be moved are put through, the embargo applying to it being lifted for the time being. The embargo upon ocean shipments from Atlantic and the Gulf ports is practically complete, the last vessel which left port having sailed about the first of March.

Market conditions in the South are strong—stronger, in fact, than Mr. MacBeth expected to find them. He expected at first that he would be able to pick up some attractive stocks of various kinds for the Canadian trade, but found it practically impossible to obtain anything that could be shipped into Canada and meet the competition already existing in this country. The conclusion he came to was strongly to the effect that the Northern manufacturer need not fear much competition from Southern timbers under present conditions.

Mr. MacBeth has made some good connections in the South for stocks of long-leaf pine, short-leaf pine, and North Carolina pine; also for cypress, oak, and red gum, which he expects to result in good business later on.

During his trip Mr. MacBeth covered about 5,000 miles, and was greatly impressed with the timber resources of the country. Fully one-half of the country he passed through was in pine timber. He had often wondered, he said, how it was that the Southern mills could produce lumber so cheaply and have anything left, but after seeing the forest conditions and the great extent of the timber he had ceased to wonder. The forests in the South are as free from underbrush or fallen timber, he says, as a floor, and where the timber was not too dense, you could drive an automobile through it. The country generally is remarkably level, so that when they wish to run a railway into the woods all they have to do is to cut the way and lay the road. Labor, moreover, is cheap, and, contrary to the general impression, efficient. People often talk about the negro laborer not being efficient, yet in visiting a large number of important Southern mills he had noticed invariably that there would not be any more men employed on the mill floor than in a Northern mill. These men are being paid $1.50 a day and are boarding themselves. It can readily be seen, therefore, how these firms can produce lumber so cheaply. Mr. MacBeth had been informed, he said, that much of the timber land could be secured in fee simple at from $5 to $10 an acre, and, judging from what he saw, he thought that it would produce on an average not less than 15,000 feet to the acre. Moreover, after it has been logged off, the land is good for agricultural purposes.

Dodge Manufacturing Company Doing Extensive Business in England

The Dodge Manufacturing Company, Toronto, report that they are finding a good demand for the Dodge standard wood split pulley in England, and that they are making extensive shipments to that country. In order to keep pace with their growing trade they have now found it necessary to extend their facilities for the manufacture of their pulleys. This export business, being based upon the merit of the pulleys, is of a permanent nature, rather than of a temporary character arising out of the present abnormal conditions in the old land. It is gratifying to note this instance as evidence of the ability of Canadian manufacturers not only to hold their home markets, but to excell to the extent of being able to compete successfully abroad.

The British Import Restrictions

The latest information received from Great Britain regarding the softwood import restrictions indicates that the British Government is acting, as far as possible, in such a manner as to lighten the burden placed upon the trade by the new situation. Under present conditions, licenses to purchase imported softwood timber are being granted freely, and the same is the case with licenses to sell. A letter recently sent by the Director of Timber Supplies to the timber trade contains the following explanation of the present import and sale license situation:—

Licenses for Purchase and Sale of Imported Timber

1. In present circumstances the Government has no desire to restrict or discourge the importation of soft wood or timber. But it is necessary that a license should be obtained before foreign soft wood (other than pit props) is purchased by a British merchant, whether from a foreign shipper or a shippers' agent. Accordingly, merchants who arrange to purchase soft wood, other than pit props, either from a foreign shipper or from a shipper's agent, should, before the purchase is concluded, apply for a Merchant's License to Purchase, stating the kinds of soft wood and the quantities of each kind covered by the transaction. These licenses will, in present circumstances, be granted freely. Applications for them should be addressed to the Director of Timber Supplies, Room 200, Caxton House, Tothill Street, Westminster, S.W. They may be made by telegram.

2. Shippers' agents who import soft wood (other than pit props) for sale in the United Kingdom will, if they so desire, be granted a Shipper's Agent's License for Sale. A separate license must be taken out for each contract. These licenses will, in present circumstances be granted freely. Applications for the licenses should be made to the Director of Timber Supplies, stating the kinds of soft wood and the quantities included in the contract. They may be made by telegram. But it must be understood that the possession of a Shipper's Agent's License for Sale does not warrant the Shipper's Agent in concluding a sale with a merchant, unless the merchant has obtained a Merchant's License to Purchase.

3. Certificates, such as are prescribed by the War Office letter of the 8th of February, 1917, must be taken by merchants from purchasers who purchase more than one standard of soft wood (other than pit props) for use or consumption. But they need not be taken from other merchants who purchase for re-sale in the course of trade. In this case it will suffice to take a simple engagement agreeing not to sell for use or consumption except on the receipt of a certificate from the purchaser, such as is prescribed in the letter of the 8th of February, 1917. (Signed) Bampfylde Fuller, Director of Timber Supplies.

Another important notice, dealing with imports of wood into Great Britain, sent out by the director of timber supplies, reads as follows:

"It has been brought to the attention of the diretor of timber supplies that a certain representative of foreign shippers has offered imported wood at prices which exceed those of the week ending January 31, 1917.

"The War Office timber regulations do not interfere between British merchants and foreign shippers or the agents of foreign shippers, but a timber merchant will not be at liberty to dispose of imported timber at higher prices than those current during the week ending January 31, 1917.

"It is proposed, in conjunction with the advisory committee which is to be appointed, to formulate a statement of these prices. Meanwhile they are to be taken as those at which sales were actually made by the individual merchant, and any increase in prices over those which he offered to accept during that period is contrary to the regulations."

Pacific Coast Ship Yards Require Large Amounts of Lumber

The quantity of lumber that will be required during 1917 by Pacific Coast yards is estimated by the West Coast lumbermen at between 100,000,000 and 150,000,000 feet. This is in reality an entirely new market for Pacific Coast lumber, for never before in the history of the lumber industry have the shipbuilding requirements been anywhere near what they were in 1916, or what they will be during the present year. It is estimated that approximately 1,000,000 feet is required in the construction of a vessel which has a carrying capacity for a like amount of lumber, although shipbuilders state that the amount of lumber required is greatly in excess of that figure. Many thousands of feet of cheap lumber are also used in shipyards in addition to the better class of lumber which actually enters into the construction of the ship itself.

Imports of wood and manufactures of wood into Canada during the twelve months ending December, 1916, were valued at $11,189,435. During the year 1915 the value was $8,273,456.

Wooden Vessels Relieve Shortage

Ocean Tonnage Problems Being Solved by Shipbuilding Industry in Canada and United States

The following condensed statement of what is now being done in the Pacific coast and Great Lakes regions of the United States, and the Pacific and Atlantic coasts of Canada, to prevent a famine in ocean carriers, is furnished by the National Lumber Manufacturers' Association:

Owing to the high prices of steel, and the time required for construction of steel ships, the wooden ship is coming back into its own, chiefly in the form of schooners, with auxiliary engines, chiefly internal combustion types. There are sixty-eight wooden vessels under construction in the United States Pacific coast, with a combined carrying capacity of 88,563 tons, or an average of over 1,000 tons. Each vessel is using 1,250,000 feet of lumber in its construction, and built for lumber carrying, chiefly, though available for any variety of tonnage if required, have a capacity of 1,500,000 to 2,000,000 feet of lumber each. Inasmuch as the plant facilities for building these vessels are not expensive or detailed, this type of ship can readily be built in large quantities. In the war of 1812, it will be recalled, Commodore Berry converted trees from the forest into warships in ninety days, and this time can be beaten on modern larger ships by the modern equipment easily obtainable.

There is a revival of the building of schooners such as formerly constituted the chief bulk of the Great Lakes fleets, and practically all of which have been sent down the lakes for Atlantic coast charters. Within the week a Kenosha builder has entered the market for 48-foot oak timber, 7 x 9 inches, for keels for schooners and small power cruisers.

The United States has just felt this need. In Canada, however, shipbuilding has become one of the great war industries of the Dominion, there being contracts placed for ships at a total cost of $209,000,000. There are seven schooners of the American type being built now in British Columbia, with a total capacity of 10,500 tons.

A Vancouver syndicate has let contracts for the building of three 1,000-ton vessels to cost $1,250,000 each. Another Vancouver firm has taken a contract to build six five-masted schooners of the American type of lumber carrier, one to be launched every two months. The Provincial Legislature has passed an act guaranteeing an annual dividend of 15 per cent. on the actual cost of all these ships, for a period of ten years, provided they are built in the province and sail from British Columbia ports. These ships will be built to carry grain, for the export rate of grain from the grain fields of the Nechako and Bulkeley River Valleys, and parts of Alberta are capable of competing with the rate through Fort William and Montreal by rail and lake.

The best timber in the Dominion for shipbuilding is on the Pacific coast, but in order to stimulate the building of similar work on the Atlantic coast, the Grand Trunk Pacific, which touches the heart of the lumber region, such as the Nachako and Bulkeley Valleys, and the region about Prince Rupert, as well as Vancouver, through a branch line connecting at Prince George, and the Canadian Pacific roads are giving special attention to lumber shipments from the Pacific coast to the Atlantic shipyards, the lumber going practically on passenger schedule. The total vessels on order in the yards of Vancouver are twenty-five, only four of which are steel.

The Atlantic coast has not been idle. There are thirty-five vessels being built in Yarmouth, Nova Scotia, all of wood. These, like the Pacific coast vessels, are intended chiefly to constitute an emergency ocean-going merchant fleet, but destined eventually for coastwise trade.

Meanwhile, the Canadian Government is seeking to stimulate shipbuilding on the Great Lakes. It is believed that some of the acquisitions of shipbuilding facilities on the lakes last year were on behalf of the Canadian Government. Vessels laid out are to be of 4,000 tons capacity, adapted for offensive and defensive patrol duty as well as freight service. Among the plants secured are the St. Clair plant of the Great Lakes Engineering Works, and the Marine City plant, S. C. McLoud Shipbuilding Company.

Of the historic old three-masted schooners, common on the lakes forty years ago, which have demonstrated on the coast that they are serviceable for ocean traffic, are the G. J. Boyce, of Milwaukee, taken to salt water by Capt. Peter Larsen, of Chicago, and the Minerva, Hackley, of Lake Michigan, Irondale and John H. Meade, of Lake Erie.

Five steam fishing boats built in Maine for the Seaboard Fisheries Company of New York, were sold to the British Government for $500,000. A contract for five more was placed with the Manitowoc Shipbuilding Company of Manitowoc, Wis., and the three which have been completed and delivered to salt water have been taken over by the British Government from the Seaboard Company.

A report from Sherbrooke, P.Q., states that large quantities of pulpwood are being shipped from various railway points in the district. The demand is good, and farmers are receiving $12.60 per cord.

Mattagami Pulp and Paper Company's Plant

The accompanying illustration represents the sulphite mill of the Mattagami Pulp and Paper Company in process of erection at Smooth Rock Falls, Ont. The plant is being constructed rapidly, and will be the second largest producer of easy bleaching sulphite in Canada. It is expected that the plant will be ready for operation by June. The Mattagami Pulp and Paper Company are developing their own town site. They own a large area in the vicinity of the mill, and are putting up modern dwelling houses for their employees, together with desirable public conveniences and entertainment facilities. These will include a lecture hall, library, school, club room, reading rooms, moving picture theatre, etc. The mill is being constructed under the direction of Mr. S. R. Armstrong, general manager, who for twenty years was connected with the New York and Pennsylvania Paper Company as vice-president. The first unit of the mill to be operated will have a daily capacity of 150 tons of sulphite fibre, bleached and unbleached. The first hydraulic development is designed for 9,000 h.p., and additional power will be held for future expansion. The company have extensive freehold and leasehold timber limits, convenient to the mills, including 124 square miles of the former and 840 square miles of the latter. The plant will include three digesters, each 19 x 65 feet. Smooth Rock Falls, Ont., is located on the Mattagami River, about three and a half miles from the Transcontinental line, with which connection is made by a railway built and operated by the company. The head office of the company is at Toronto. Mr. Duncan Chisholm is president and Mr. S. R. Armstrong general manager.

Mattagami Pulp and Paper Plant nearing completion, at Smooth Rock Falls, Ontario.

Deep Draught Log Booms in Use

Pacific Coast Firms Adopting a Practical Method of Preventing Loss from Wind and Tide

For about ten months of each year hundreds of logging camps, large and small, are in steady operation along the heavily timbered stretch of British Columbia mainland lying between Vancouver and Prince Rupert, a distance of five hundred miles, as well as at many points on the east and west coasts of Vancouver Island. The annual output of the tidewater operators is between seven hundred and eight hundred million feet of timber, and the towing of the logs to Vancouver and other points of destination furnishes steady employment to a large fleet of tugs. The timber is mostly handled in the ordinary form of boom, and, while portions of the route are well sheltered, there are stretches where, in bad weather, the full force of the Pacific Ocean swell must be encountered, and exposed "gaps" where wind and tide are met at variance, with results seldom to the liking of the tug captains. Under such conditions it is not unusual for tows to go adrift or a large percentage of the logs to escape from the boom, with small chance of subsequent recovery. The losses of the loggers and millmen in this way have run into large figures each year, and the towing risk from certain localities has been responsible in the past for the non-development of some valuable limits.

Naturally then, when British Columbia lumbermen heard about the successful trials of a new system of rough-water rafting, invented by G. G. Davis, a Vancouver logger of long experience, they manifested deep interest in the new method. Messrs. F. L. Buckley, former managing director of the British Canadian Lumber Company, Ltd.; A. B. Martin, former receiver for Ocean Falls Company, Ltd.; N. R. Whittall, manager Iowa Lumber and Timber Company, Ltd.; John Hind, manager Vancouver Towing Company, Ltd.; S. D. Brooks, logging superintendent Powell River Company, Ltd.; J. H. Greer, of Greer-Coyle Towing Company, Ltd., and other well-known men, have transported millions of feet of logs in the new-style boom, which is controlled by the G. G. Davis Raft and Timber Company, Credit Foncier Building, Vancouver. In a recent interview concerning his boom, Mr. Davis said:

"While I was logging superintendent for the British Canadian Lumber Company in 1911 we had a camp at Port Renfrew, on the west coast of Vancouver Island, where more than half the logs were lost by the ordinary way of rafting. I saw that there had to be some other method adopted to get the logs to market. After several experiments, I finally devised this method of rafting, which has since been used successfully in towing logs from the west coast of Vancouver Island and also across Queen Charlotte Sound. We were entirely successful in towing 30,000,000 feet of logs from Ocean Falls to the American side, in the State of Washington—a distance of over 500 miles—without any loss whatever. We have been using it steadily for the past five years from Port Renfrew; and we also brought a tow from Quatsino, around the north end of Vancouver Island, through part of the Pacific Ocean, to Vancouver. This was accomplished by Messrs. Young & Gore with their tug Sea Lion in six days, which I consider one of the best towing records over made on this coast.

How to Build the New Raft

"All that is necessary for the construction of this raft is a small donkey (7 x 8 American hoist preferred), using two lines 250 feet long, with a loading hook spliced on the ends of the lines. This donkey is placed on a float of logs with a small gin-pole or head work about ten feet high in front. By placing the donkey on the opposite side of the raft from the logs it is possible to use two lines to parbuckle the logs into place, setting the two loading hooks at the spot where the logs are to be placed. By using two lines the logs can be placed in position better than with a crotch line or single line. Two to three hundred thousand feet of logs per day can be loaded in this manner. The method of building the raft is as follows:

"The best results are secured by using a long side stick, say 100 to 120 feet long, and sticks about 70 to 80 feet long. These sticks should be at least 20 inches in diameter at the top end, the four sticks to form a square, say 70 x 120 feet. Within this square you stow two or three lengths of logs, depending on the length of the log as cut. The raft must be built so that the length of logs will come even, or about even, at the end of the raft—say, 20, 30, 40 feet or longer—that will make 120 feet in length, or 24, 36, 40 feet, or any lengths placed end to end that will come within the limits of the boom. After putting in the bottom row of logs, fasten a wire securely to the boom stick by means of wire clip; next place this wire alternately over and under each log and fasten it to the boom stick on the opposite side. Another wire is placed exactly opposite to this one, to be securely laced in the same way. These cables are placed on each end of the log, so we have a bottom of logs within this square thoroughly laced. Now the donkey engine on the opposite side of the frame is used for parbuckling the logs for the next row, care being taken to break joints as much as possible. Say there are three lengths of logs in the bottom; then endeavor to place four lengths on top, because the better the joints are broken the more secure the raft will be, and by using a little care it is possible to make the logs fit very nicely. When the raft is finished, place four wires over the top, tightening them up with the donkey engine. When properly loaded, the boom sticks and end sticks will be floating out of water, thus making it easy to release the cables for tripping the raft when it gets to its destination. A raft of this size contains about 500,000 to 750,000 feet of logs, and will draw about 15 or 16 feet of water, depending on the kind of logs used in its construction.

The Equipment Needed for Work

"The necessary equipment for this raft consists of 12 wires 150 feet long 1⅛-inch galvanized wire is the best for this purpose; 24 1⅛-inch wire clips, and 8 ordinary boom chains. It is unnecessary to go to the expense of driving a boom ground or making any expensive preparations. You can build a raft by just anchoring the square with an ordinary anchor and bringing the logs to it—in fact, the raft may be built anywhere there is sufficient depth of water to build in. It can be made longer and of shallower draft, but will not stand the heavy seas so well as if built as described. The same bottom may be used for carrying shingle bolts or cedar chunks for bolt-making, or they can be towed for long distances on top of the logs at very little additional expense.

"This form of raft may be constructed at a cost of from 12 to 35 cents per thousand feet, depending on the locality and kind of timber. It insures the delivery of logs so that the logger can count on getting the money from them which they actually represent. The percentage of loss under this system has been practically nothing, while under the old method the loss has been, on the west coast, as high as 50 per cent.

"There was one raft lost in Queen Charlotte Sound, the wind and sea having got to such a height that the boat had to cut and run for it. This raft was last seen by a Japanese liner over two thousand miles at sea and still intact."

The Davis Patent Raft, used in Pacific coast waters, by means of which towing losses are eliminated.

Quoting Upon a Contractor's List

Taking Off Quantities and Figuring a Price—Difficulties Certain Unless Details are Complete

Every retail lumberman knows more than he would like to know about the uncertainties, difficulties, and pitfalls connected with the figuring of a bill of lumber for a house. Unless all the essential details are included in the list, only bull-headed luck will save the contractor and the lumber dealer from disputes of a more or less exasperating nature, which are quite unnecessary if the thing is gone about properly. The most essential factors in such a list are qualities and quantities. Unless the full amount required and the grades to be used are clearly understood, trouble is likely to develop, and if the contractor gets several firms to figure he will be at sea when he finds a great difference in the prices asked by those who figure on low-grades as compared with those who conclude that a higher quality is wanted, or between those who form different conclusions regarding the quantities required. Wide-awake contractors and lumber dealers do not need to be told this, but there are many offenders, and even the best of firms are continually experiencing some difficulties of this nature.

As to the making out of the list, this ought to rest solely with the contractor if he understands his work. He ought not to give the lumber dealer a blue print without specifications and expect him to quote intelligently on the bill; nor should dealers take this sort of business. But no firm ever seems to be able to hew straight to the line in this matter, as the personal element comes into play very often and breaks the most rigid rules.

Lists Should Be Closely Analyzed

From the side of the contractor the trouble could be overcome entirely. He is the active offender when lists are not as thorough as they should be. The lumber dealer's part is more or less passive. He quotes on the details of the list to the best of his knowledge, and has to take such lists as the contractor furnishes, or draw up his own lists from information that is frequently incomplete. How the matter appears from the point of view of the experienced contractor is outlined in an article written by W. V. Cloakley, published recently in "The National Builder." "There are as many different methods of taking from a blue print the amount of lumber necessary in building a house as there are contractors," Mr. Cloakley says. "If one hundred contractors were to estimate the lumber shown on a given blue print, the result would be one hundred different lists, different in construction as well as in the amount of lumber and the class of the material. Of course, a great deal of this difference in the kind of lumber to be used is done away with by the specifications which should accompany the blue prints on all jobs which are properly laid out. However, it often happens that a kind of lumber is mentioned and no grade given. This leaves room for a great deal of difference in what is finally figured by the contractor. For instance, the specifications will say: 'All partition studding to be No. 1 common pine and free from bark,' or 'all studding to be of straight yellow pine.' You will notice that in the first instance no kind of pine is mentioned. As there are a great many different kinds of pine lumber, this is necessary. Some may figure yellow pine; some Norway, etc. This makes a big difference in the net result. In the second instance, it will be noted that no grade is given. This gives rise to the question of quality, as some would figure No. 1; some No. 2, etc. This also would cause a great difference in the final cost of the building to be figured.

"Recently I had occasion to figure a list which gave no grades, and, thinking we should furnish good material, figured all No. 1. When the figure was presented to the contractor it was found to be $50 too high. The contractor naturally inferred that I had tried to get a big price from him, because he had in the past given the bulk of his business to me and was not in the habit of taking other figures. I finally persuaded him to compare my list wih the others, and, after going over them carefully, he discovered that the man who had beat me so badly had figured on low-grade material (which he had a right to do, there being no grade mentioned). Had my friend not compared the lists and bought the bill from the other man, the result would have been an unpleasant one, to say the least, as he would have kicked on the poor grade and been informed by the lumber company that the material delivered was what the list called for. The list would have been checked up and he would find they were right. Result: He would have had either to use the inferior material or pay the difference. In either case, he would have been prejudiced against that particular lumber concern thereafter. In this case this did not happen because the difference was discovered in time. However, cases such as stated above are frequent occurrences, and all rise from the same cause—carelessness.

"These are not the only reasons for this difference in the making out of lumber lists. There is a great deal of guessing done in taking out a list, and consequently a contractor who follows this method will either be short or have too much figured. In the one case he will lose on the job, and in the other he will not get it, so one result is about as bad as the other when the year's increase is considered.

"I had occasion not long ago to see a striking illustration of what guessing will do. I called upon a certain contractor who was about to put up a two-storey flat building and asked for the privilege of figuring the lumber list. He informed me that he did not have the list ready, but if I had a piece of paper he would tell me what he wanted. So I wrote down what he called out to me. He did not refer to his blue print at all, merely guessing at what he would need. I remarked, when he had finished, that I thought he had too little lumber and was told that he thought not. I had no alternative but to figure what he had given me. This I did, returned a day or so later, and submitted my figure. The contractor was greatly pleased when I told him the amount, as I was considerably lower than another figure which he had. It developed after considerable conversation that my list and the one figured by my competitor were radically different, mine containing less material than his. The list was readjusted and refigured, and I finally sold the job. This man was short on his lumber $150. The case mentioned here is a good illustration of what can result from guesswork in making out a lumber list. In this case the contractor lost nothing, as he was building for himself, but had he been building for someone else he would probably have done the same thing, with the result that he would have lost the $150. At any rate, it made a great deal of unnecessary figuring and running back and forth, as well as no small amount of needless argument, which always leaves a bad taste in the mouth, to say the least, no matter how amicably it may be settled.

"A contractor should give as much detail in a list as he possibly can. He should state exactly what kind of lumber is wanted, mention the grades, and, above all, make each list given out to be figured on the same job exactly alike. Then, when the various figures are received he should check them over carefully before deciding which of them is the lower. At first glance one may be considerably lower than the other, but one firm may not be figuring on as good material as the other, so the contractor should investigate first and decide afterward who shall get the job.

"Most contractors making out a lumber list go about it in a haphazard manner, and do not use any set rule as to which to take out first, etc. Consequently, it is a frequent occurrence for the estimated amount to be too little. It is a good idea to start with the basement timbers and figure all the lumber necessary to construct the coal sheds, etc., in the basement first. After the basement has been gone over carefully, take out all the joists, from top to bottom, then the subfloors and roof-boards, then all studding and furring (where a brick house is to be built). Next all floor strips; then the sheeting and outside trim. After this is figured out, go to the outside and figure all the cornice boards, etc. The porches should be considered next, including everything needed to complete them; then the finished floor. The last thing to be considered for the house itself is the roof, and the shingles or roofing should be the last thing to appear on the list, as it is never shipped until the balance of the framing lumber has been delivered anyhow.

B. C. Mills Get Orders for Fifty Million Feet for Eastern Shipbuilding

Vancouver, March 26.—(Special to the Canada Lumberman.)—The mills in British Columbia are suffering seriously on account of the continued car shortage. According to the statement of one of the largest manufacturers on the Coast, there is great danger of a car shortage during the next three or four weeks, on account of heavy supplies of timbers that are being cut for government purposes, and which will require a large number of cars for transportation. Orders have been placed by government authorities with Coast mills for approximately 50,000,000 feet of merchantable timber for immediate shipment to the Atlantic seaboard, to be used in the construction of vessels and for other defences against submarine attacks. It is believed that this order will affect deliveries from all Coast mills, but it will not be likely to create any serious objections on the part of manufacturers, or on the part of Canadians in general, as it is for a definite national purpose, which will increase in particular the protection of the prairie farmers' crops in their shipment to Great Britain.

The British Secretary of State for the Colonies, in reply to questions recently asked as to whether orders for timber are being given to British Columbia, "if any, and what kind of timber is ordered; and will his department see that, as far as possible, this colony shall now, and after the war, receive its fair share of such timber orders so as to further develop its great timber resources and trade generally," stated that contracts have been placed in British Columbia, and the placing of others is under consideration, but the long sea voyage and the shortage of tonnage have rendered it difficult to take much advantage of the great resources of British Columbia, and this shortage is likely to act still more disadvantageously in the near future.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Maple and Birch Wanted

Wanted: Maple Axles, 4¼ x 5¼. Also Birch Squares, 4¼ x 5¼. Jackson Wagon Co., St. George, Ont. 6-7

Wanted

Dry hard maple, four-quarters, to eight-quarters. Quote lowest price f.o.b. cars. Apply Ontario Spring Bed & Mattress Company, London, Ont. 7-7

Lumber Wanted

Wanted for delivery in March, April or May, 150,000 feet Soft Elm, 2 in. — 3½ in. thick; also 3 to 5 cars 2 in. and 3 in. thick Rock Elm. Reply Box 517, Canada Lumberman, Toronto, Ont. 4-7

Wanted

2 cars Dry Peeled Cedar Posts, 3½ to 4½ —8 ft.
2 cars Dry 1 and 2 in. No. 1 Hemlock, 10-16 ft.
1 car Dry Pine, 1 x 4, 8 and 10—10-16 ft., for boxes.
Cash price less 2 per cent.
Box 195 Jordan, Ont. 7-7

Lumber Wanted

5 cars 1 in. Resawed No. 2 Com. Birch, f.o.b. Binghamton, N.Y.
3 cars 1 in. No. 2 Common Brown Ash, f.o.b. New York.
1 car 1 in. No. 1 Com. Brown Ash, f. o. b. New York.
5 cars 1½ in. and 2 in. No. 1 Com. and No. 2 Com. Birch, f.o.b. New York.
3 cars 5/4 Basswood, No. 2 Common, f.o.b. New York.

WAYNE LUMBER CO.,
44 Whitehall St.,
7-7 New York.

For Sale–Lumber

Lumber For Sale

300,000 ft. B.M. 1 x 4 and up Clear and No. 1 Spruce.
400,000 ft. B.M. 2 x 4 to 2 x 10 Spruce. Piled widths and lengths separate.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale–Machinery

Chopper For Sale

For sale, one Joliette Chopper, 13 inch, in first class condition. Apply J. W. Tuttle, Curries, Ont. 4-7

Portable Mill

Portable sawmill for sale, in first-class condition, with double edger. Apply Box 552. Canada Lumberman, Toronto, Ont. 7-10

Alligator For Sale

West & Peachy make. In good condition. The Peterborough Lumber Company, Limited, Peterborough, Ont. 7-8

For Sale

For saw, shingle and lath mill machinery write the G. Walter Green Co., Limited, Peterboro, Ont. We have a nearly new 50-brake H.P. Case engine on skids. 6-9

For Sale

Ten miles of 52 lb. relaying rail fitted with Atlas joints for prompt shipment. For particulars apply to

JOHN J. GARTSHORE,
58 Front Street West,
5-8 Toronto, Ont.

Saw Mill Machinery For Sale

1 100-h.p. boiler with Dutch oven, latest type, and all fixtures; 1 14 x 14 Robb Engine, latest type, with all fixtures; 1 sawmill frame with rope feed; 1 edger, self-feed; 1 lath machine with bolter, etc.; 1 planer and matcher; 1 re-saw, together with a quantity of saws, shafting, belting, live rollers, etc. All of the above, in A-1 condition, will be sold at a bargain, and can be seen at any time by appointment. H. W. Woods, Welsford, N.B. 7-10

List of Saw Mill Machinery For Sale

Item No. 1—One Circular Resaw, complete, with two saws. Condition good. Wm. Hamilton Co. make.
Item No. 2—One Large Circular Saw Frame, pulley and arbor complete, (Metal frame), good repair. Waterous make.
Item No. 3—One Seven Block Carriage. Can cut sticks up to 40 feet in length. Wm. Hamilton Company's latest make. No set works.
80 feetV Steel track.
80 feet Flat Steel Track for same.
Three 1¼ in. Served Steel Wire for feed for same.
One Cunningham Twin Engine for above carriage. Practically new.
Item No. 4—50 feet V Steel Track.
50 feet Flat Steel Track.
Item No. 5—Three Head Blocks and Bunks, with Payette dogs for Hamilton No. 2 Carriage.
Item No. 6—One Twin Saw Frame and Arbor, pulley and saws with track and feed chain complete. Condition good. William Hamilton Company make.
Item No. 7 — One Lath Mill. One Bolter. One Picket Machine with saws. In fair repair.
Item No. 8—One New Mershon Horizontal Band Resaw and saws complete. Only used part of one season.
Address

The Colonial Lumber Company, Limited,
4-7 Pembroke, Ont.

Wanted–Machinery

Refuse Hog Wanted

Wanted to purchase a used refuse hog for saw-mill. Apply Box 518, Canada Lumberman, Toronto, Ont. 4-8

Automatic Sharpener

Wanted second hand automatic sharpener for circular saws, rip up to 60 in.; crosscut to 40 in. Must be in good working order. State lowest cash price. Box 548, Canada Lumberman, Toronto, Ont. 7-8

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

BAND SAWYER wants position. Right or left hand. Single or double cut. First-class references. Box 2, Canada Lumberman, 42 St. Sacrement St., Montreal. 7-10

LATH MILL MAN wants position to run lath mill by the day; will go anywhere. 12 years' experience. References. Box 537, Canada Lumberman, Toronto, Ont. 6-8

BAND SAWYER wants position, right hand mill preferred; 20 years' saw mill experience; first class references. Box 496, Canada Lumberman, Toronto, Ont. 4-7

SAWYER wants position; fifteen years' experience. Circular sawyer, turn, heading and always file my own saws, in small lumber mills. Box 533, Canada Lumberman. Toronto, Ont. 6-7

WANTED POSITION, by a first class mechanic, 25 years' experience in charge of modern high capacity Saw Mills. Can handle any type machinery. Address first instance, Box 497, Canada Lumberman, Toronto, Ont. 2-7

Married man, 37 years of age, with 11 years' experience in logging office of large lumber concern, desires change. Willing to go to any part of Canada. For further particulars apply to Box 498, Canada Lumberman, Toronto, Ont. 5-7

POSITION WANTED BY A FIRST-CLASS ACCOUNTANT for outside work, as shipper or yard foreman for some lumber or pulpwood concern in the province of Quebec. Apply in writing to Box 540, Canada Lumberman, Toronto, Ont. 7-7

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

AS I HAVE CONNECTION IN THE LUMBER BUSINESS I would like to do some buying, and shipping, if necessary, for a firm who handles soft wood lumber. Ready for engagement. For particulars apply to Box 549, Canada Lumberman, Toronto, Ont. 7-7

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

LUMBER MEASURER WANTED, to ship from the pile. Must be experienced, able to handle men, sober, steady. All-year job to right man. State full particulars to Box 536, Canada Lumberman & Woodworker, Toronto, Ont. 6-7

WANTED—MECHANIC, experienced in sawmill and pulp mill work; one capable of handling gang of millwrights for repairs and construction. Apply, giving qualifications and experience, to Box 550, Canada Lumberman, Toronto. 7-8

WANTED—EXPERIENCED FILER for round saws, including shingle saws; one capable of fitting and hammering. Please reply, giving qualifications, to Box 551, Canada Lumberman, Toronto. 7-8

Business Chances

Sawing Contract

Wanted—Man with Portable Sawmill, to cut, at Haliburton town, about one million feet of lumber, mostly hemlock. Fesserton Timber Co., Ltd., 15 Toronto Street, Toronto. 7-8

For Sale

Timber Limits and Sawmill, estimated fifteen million feet of hardwood and ten million feet soft woods. Sawmill capacity 25 M. feet. Shingle mill 125 M. Docks, tug, booms, logging outfit, houses, etc. Price $35,000.

The Manitoulin Lumber Co., Ltd.,
7-7 Walkerville, Ont.

Miscellaneous

For Sale
Timber Limits

125 square miles; river in middle, driving the logs to mill, along the I. C. Ry.; at a [illegible] rate to Boston. Well timbered with spruce for first-class lumber and pulpwood—cedar and pine—No agents. Address E Simard, 517 Ste. Emile, Montreal. 7-7

For Sale

24 B. C. Timber licenses (perpetual) on inland passage to Prince Rupert. Also properties at Chilliwack Lake and Quatsino Sound. All good logging propositions.

CARL BLOCK,
5-10 Peoria, Ill.

Auction Sale of Timber License

Under and by virtue of the powers contained in a certain hypothecation which will be produced at the time of sale and under and by virtue of all other rights and powers thereunto enabling, there will be offered for sale by public auction on Wednesday, the 2nd day of May, 1917, at the hour of 2 o'clock in the afternoon, by C. M. Henderson & Co., Auctioneers, at their premises, 128 King Street East, in the City of Toronto, the following property, namely:—

All that certain license to cut timber in and upon certain portions of the Township of Proudfoot, which license is known as Number 286 of the Season 1916-1917, and being Berth Number 3 in the said Township, as set forth and described in the said license, saving and excepting thereout all such lots or parcels as are thereby excepted.

The limit for which this license is held is said to be favorably situated and easy of access. There are said to be considerable quantities of valuable hardwood upon the limit, over 3,000,000 feet of birch and over 800,000 feet of maple, being stated to be suitable for manufacture into lumber, besides upwards of 100,000 cords of hardwood.

Terms—Ten per cent. of the purchase money to be paid down at the time of sale and the balance to be paid within thirty days, without interest.

The License is offered for sale subject to all the conditions and regulations of the Department of Lands, Forests & Mines of Ontario, affecting the same.

The property will be offered for sale subject to a reserved bid.

Further particulars, terms and conditions of sale will be made known at the time of sale or upon application to Johnston, McKay, Dods & Grant, Traders Bank Building, Toronto, Solicitors for the Vendors.

Dated at Toronto this 12th
day of March, 1917. 6-9

Birch Stumpage Wanted

We are open to consider a large block of Quebec birch stumpage; must be good operating chance and near railway. Apply Box 546, Canada Lumberman, Toronto, Ont. 7-10

Township Foster
Timber Limit For Sale

License Renewable. No time limit; 36 sq. miles on North Shore. Abundance of excellent timber throughout its entire area. Pine, Birch, Hemlock, Spruce, Cedar Ties, Poles and Pulpwood. Roads all cut and ready for operation. Close to two railroads. Splendid chance for portable mill operation. For particulars apply R. B., Box 544, Canada Lumberman, Toronto, Ont. 6-9

Wood Preservation with Sodium Fluoride

A number of lumber companies in the United States are now experimenting with sodium fluoride in large quantities as a sap stain preventive. One mining company is using it for the preservation of its mine timbers, and a railroad company treating over a million ties per year is seriously considering its use in place of zinc chloride. These activities are due directly to the Forest Products Laboratory's studies of this chemical. Two chemical manufacturing companies are now putting sodium fluoride on the market in large quantities, and one of them is prepared to enlarge its capacity greatly and attempt to reduce materially the cost of manufacture.

Utilization of Bark for Felts

The United States Forest Products Laboratory has discovered and thoroughly tested a new use for spent hemlock bark, which gives promise of being immensely important from an industrial standpoint. Over 200,000 tons of roofing felts are now made annually in the United States, the basic fiber material used being rags. On account of the war and an increase in the business prosperity of the country, the price of rags rose to $72 per ton. The Laboratory then discovered a method whereby it was possible to substitute spent hemlock bark for as much as 30 per cent. of the rag stock. The bark is now used chiefly for fuel, and for this purpose is worth about one-fifth as much as soft coal per ton. The tests were supplemented by mill trials, and roofing felts containing 30 per cent. of bark are now being manufactured commercially. The mill with which the Laboratory co-operated in these tests is now utilizing 150 tons of bark per week and, as a result of this substitution, is saving $1,300 per week. This use of bark, if universally adopted, should cut the cost of manufacturing felts in the United States by probably $1,000,000 annually. At the same time, the value of the bark will be doubled.

Studies are now under way to find methods of substituting bark for other materials in the manufacture of wallboard, indurated pails, conduits, wall paper, etc. Most interesting and promising results have already been obtained.

A new method of producing tanin and fiber from hemlock bark has been tested. It consists in mechanically disintegrating shredded hemlock bark in an ordinary beating engine under proper temperature control. A short treatment in the beater removes a large amount of tannin from the bark, at the same time reducing the bark to a condition suitable for manufacture into paper products. This new process gives promise of successful commercial application.

Wood Block Floors

A survey has been completed by the United States Forest Products Laboratories of the use of wood blocks for flooring in factories, warehouses, and other places of heavy wear; and proper methods have been worked out for laying the blocks. The use of wood blocks for this purpose is increasing rapidly. Tests completed on the treatment of wood blocks showed that to secure the best penetration of the preservative, the pressure applied should be comparatively low and held for a long period of time. This gave a more uniform penetration than was obtained by means of a higher pressure applied for a shorter period. The proper application of this principle will undoubtedly result in substantially prolonging the life of wood blocks.

Utilization of Mill Waste for Sulphite Chips

The increasing cost of pulpwood is focalizing attention upon the possibility of utilizing sawmill waste for the manufacture of chips suitable for pulp. An exhaustive study has been completed showing the extent to which mill waste is now used in making pulp as well as methods of barking, chipping, screening, drying, and baling chips. This study indicates that there is likely to be an extensive utilization in the future of certain kinds of mill waste, particularly hemlock. Co-operation has been started with some paper mills in Wisconsin to test the utilization of such waste on a commercial scale.

American Lumberman: The cedar post now has an active competitor in the creosoted yellow pine post. These are now being manufactured from small trees that are broken in log skidding operations, and are creosoted at the mill and carried in stock for sale along with other sawmill items.

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Limited

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95 King St. East TORONTO

Review of Current Trade Conditions

Ontario

The lumber trade in Ontario is feeling the stimulus of the warmer weather, and indications all point to considerable improvement. In the first place, the railroad situation is better than it has been for some months, manufacturers reporting that they are getting more cars now than they have at any time since last summer. While this is not by any means a return to normal shipping conditions, the improvement is exceedingly welcome and, if it keeps up, will mean much relief to the trade. The Intercolonial Railway have lifted their tmbargoes and are now moving shipments which were tied up. A month ago they had 4,000 cars on their tracks east of Montreal and were unable to accept new business. The Grand Trunk have taken off their embargoes east of Toronto to Montreal, but still maintain embargoes against competing lines. The Grand Trunk and Canadian Pacific Railways still have embargoes against Toronto.

The demand for practically every kind of lumber is good. Prices continue strong in all lines. For cull lumber there is a good demand, and mill cull stocks and sidings are scarce, being nearly off the market. The same thing applies to 1-in. common lumber of all kinds. Cutting-up lumber is a ready seller. Lath are moving freely. Prices of lath are strong at $5.25 for 4-ft. No. 1, $4.50 for 4-ft. No. 2, $3.50 for 4-ft. No. 3, and $1.60 for 32-in. No. 3.

The export trade is quiet, so far as Great Britain is concerned, although enquiries are being received from firms prepared to do business, evidently having been able to secure licenses to import. Their chief difficulty, however, is that they are finding dry stocks in Ontario very scarce. Ontario mills are practically sold out of mill run. The demand from the United States is strong. Ontario white pine, 5/4 in. x 4 in., 10 to 16 ft. long, was sold for export to the Eastern States last week at $36 per M. at the mill.

The hardwood trade still reports strong prices, good demand and short stocks. Manufacturers and wholesalers in Ontario are sold up so close that they do not care to take new orders. Being behind in their shipments, also, they are not inclined to make quotations for forward business. As almost every week sees a general stiffening of prices, forward quotations would be made only at a risk. Nearly all thicknesses are now off the market. Basswood is scarce, almost impossible to find. Thick elm is a very rare article, and maple of any thickness is difficult to locate. The hardwood trade reports that collections are good, and that shipping conditions have recently shown a little improvement.

The Ottawa lumber trade is suffering seriously from the very strict embargoes upon lumber shipments. Nearly all trade, with the exception of that with a few local points, is practically shut off by this situation. Prices are all stiff, and in many lines have been showing advances. The retail situation is governed almost entirely by the shell box trade. The local building business is very quiet, only two or three buildings of any size being in process of erection at Ottawa, and these only require comparatively small quantities of lumber. The high prices have practically put an end to speculative building.

Eastern Canada

During the past fortnight shipments of deals from St. John, N.B., to Great Britain have not been quite so extensive as previously. The reason is that shipments of munitions have been heavier than usual and have been occupying space which would otherwise be devoted to deals. No price changes are reported, though all lines are strong and some are firmer. The absence of stock to offer at St. John renders price considerations of little importance. The United States market continues strong, and shipments are moving out steadily. The Boston base price continues at $34 per thousand, and stocks are scarce. All spruce boards at St. John have been cleaned up at prices in the neighborhood of $20 per thousand at the mills. Refuse deals and scantlings are selling wholesale at about $15 f.o.b. cars. Nearly all low-grade stocks are off the market. St. John mills will be starting operations early in April. A few of the larger mills started during the last week in March, having good supplies of logs in their ponds. It is expected that logs will be scarce on the Lower St. John this season and less plentiful than usual on the Upper St. John. Nearly all the Lower St. John mills will be dependent upon driving conditions for their log suppiles this season.

The railroad situation has been interfering with the spruce trade in the New England States. During the third week in March the New England railroads embargoed all lumber shipments. Boston quotations are firm at $34 base for frames, while a number of sales are reported at $35. Some manufacturers are talking about $40 base, believing that it will prevail early in the spring. Current quotations on random are: 2 x 3, 2 x 4, 2 x 5, 2 x 6 and 2 x 7, $29 to $30; 2 x 8, $32 to $35; 2 x 12, $35 to $36.

United States

The gravity of the international situation in the United States continues to increase, but in spite of it the business situation does not show any important indications of slowing up. Prices of nearly all manufactures continue to advance, although the high cost of living is restraining the pace of the increase to some extent, especially in such lines as building materials. Steel, however, is an exception, and it is not yet thought that the market has gone as high as it will. The financial situation of the country is encouraging, plenty of money being available for legitimate business purposes. Weather conditions have been good, resulting in better trade in the winter wheat districts. The labor situation in the United States is gradually approaching the same condition as that in Canada, namely, a general scarcity of men, added to which are various kinds of labor trouble. The international situation has a direct bearing upon the market for lumber, the possibility of war having already increased the demand for shipbuilding, which is abnormally active, and for wood to be used in other departments in connection with national preparedness. For instance, the government has just let a cotract for from 10,000,000 to 30,000,000 feet of yellow pine, in light timbers, boards, and shiplap, which it is presumed will be used for the construction of temporary quarters for soldiers on the Mexican border. This order was accompanied by a call for a bond guaranteeing immediate shipment. Other orders are being prepared for second-growth hickory and walnut for aeroplane propellers.

The car situation has been worse during the past fortnight in the Eastern States than formerly, more embargoes having been placed, on account of the threatened railroad tie-up, which, fortunately, has not materialized. In the export situation the English Government's attitude continues to be the most important feature, and is still surrounded by considerable uncertainty. Ocean freight rates to all countries continue at the recent high levels, both for steamers and sailing vessels. The Southern pine situation continues on the same basis as previously. Mills all report a great excess of orders over what they are able to deliver. Deliveries of Southern pine to Northern points, including Canada, are light. The car situation is still the chief feature of this trade, and prevents deliveries into Canada in any considerable volume. Prices throughout the Southern pine territory are firm, and the tendency continues upward. Considerable improvement is reported in the demand for Northern white pine, warmer weather being responsible. Some United States Northern pine manufacturers report that they will continue logging operations during the summer because of the heavy demand. Prices are firm in all the important Northern pine markets. The demand for hemlock is improving, on account of the opening of the spring building season. Prices have advanced beyond those of a month ago. Douglas fir prices are very firm, and only a few mills are expecting orders for upper grades. Production, orders, and shipments are all a little greater than a fortnight ago. Continued strength is reported in the hardwood markets. At Northern points all grades of maple are in very strong demand.

Great Britain

The demand for lumber at London continues urgent, but with care there is probably enough stock on hand to meet the requirements for a few months, and it is confidently expected that, before that time, the menace to shipping will be well in hand and arrivals will be fairly plentiful. Prices continue firm, showing no indication of altering from those which have been definitely set by the government. The situation in connection with softwood imports has cleared considerably during the past fortnight, and licenses to import are being granted with considerable freedom whenever it can be shown that they are required for war purposes or in the national interest and welfare. This practically puts the trade back in the position it has occupied for some months past, as conditions developing from the war had reduced the import trade practically to this basis. The prohibition order in connection with certain hardwoods, however, continues rigidly in operation, and arrivals of all kinds of woods have recently shown a temporary stoppage.

No c.i.f. business is reported in spruce deals, with the exception of a few small liner parcels, which have been promptly purchased at recent price standards. Forward buying has come to an end for the time being, and is likely to continue so until something more definite

View of Mills in Sarnia.

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has developed in regard to current values and in connection with the prohibition policy of the government. The spot market is stationary so far as prices are concerned, and each individual importer has his own ideas as to value. The demand, however, continues, and undoubtedly prices would be much higher if the government had not regulated them. The consumption continues at a steady pace. Many of the largest importers are cleared out of more than one or two sizes of spruce deals. It is not expected that the home-grown timbers can possibly take the place of the imported sizes in the wider widths, and even in some of the narrower ones. Prices for all kinds of hardwood lumber are higher to-day than they have ever been before, and as there is no government restriction in hardwood prices, values may still continue to advance. Very little hardwood stock is arriving. At Manchester the trade is very quiet, on account of government restrictions. At Glasgow it is found, as elsewhere, that the government prohibition of imports under license does not greatly alter the conditions already existing. Imports of spruce and pine goods are expected to be on a very much reduced scale as compared with recent imports, but moderate quantities will probably be allowed to enter under license. Generally stocks of timber throughout the United Kingdom are at the lowest they have ever been. A steady consumption of spruce at Glasgow is reported, involving a number of transactions from stored stocks, on the basis of prices at the end of January. Stocks on the market are much reduced, and consist largely of the narrower specifications. There has also been a moderate amount of selling in pine deals, chiefly of the lower grades, and there are a few enquiries at present for broad first pine deals, stocks of which are practically exhausted. A few sales of birch logs are reported, and brokers' stocks are almost nil.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Deal Shipments to Great Britain Somewhat Reduced

St. John, N.B., March 26.—(Special to the Canada Lumberman.)—The last two weeks have seen a slight cessation in the shipments of deals to Great Britain from the port of St. John. Munitions are shutting out the usual space for deals, and the government are not moving for their own use the same quantity of deals which they were a month ago. Many scows are piled full of deals awaiting shipment, and no doubt this state of affairs will remain for some time at least. So far as prices are concerned, there are no changes to report. If anything, they are firmer, but as there are really no stocks to offer at St. John, price is not a consideration. The American market has not in any way weakened, and stocks are steadily moving out. The base price at Boston remains firm at $34 per M., with stocks scarce. At St. John every spruce board has been cleaned up at good prices, viz., in the vicinity of $20 per M. at mills. By the time the mills start this season's sawing, stocks will be cleaned up. Prices of refuse lumber remain unchanged, with refuse deals and scantlings wholesaling at about $15 f.o.b. cars, and boards at the same price. All low-grade stocks are about cleaned up.

The next two weeks should see the starting of the mills at St. John. It is said that Messrs. Murray & Gregory, Ltd., and Stetson, Cutler & Co. will start in a few days, as they have considerable quantities of logs in their mill ponds. At the present moment it looks very much as if the River John would not open as early as in the past few years; but, should heavy rains and warm sunshine occur, no doubt the season would not be very much behind its usual opening. Logs are going to be scarce all over the lower parts of the St. John, and on the Upper St. John it looks as if the cut would not be quite so heavy as usual. The mills at St. John are depending on the driving conditions. If they are good, the mills will be kept supplied; but unless there is good driving, many mills will be without summer logs.

As to what the present season will bring forth in price and profits, no one can tell. Should the war cease, many expect stagnation in trade, while others claim that trade will improve. Time will tell. It is a well conceded fact that all parties would be willing to take a loss providing the terrible war conditions would cease.

Parrsboro and Vicinity Production about Normal

Parrsboro, N.S., March 17th (Special to the Canada Lumberman): Owing to the exceptionally favorable winter for lumbering operations the output of lumber in this vicinity will be very nearly, if not quite, up to the average. With an average winter the cut would undoubtedly have shown a decided falling off, on account of the scarcity of labor. The disposal of the lumber does not appear to be worrying the shippers very much, but, of course, they are unable to make any definite plans concerning it. A considerable portion of the output was bought in advance by the French and Imperial Governments, who will look after the transportation and relieve the shippers from any trouble in securing bottoms. If the shippers can obtain permits from the Imperial Government for the shipment of the balance of their stock, freights will continue to rule high and our schooners will have profitable employment, for they will probably be the only bottoms to be had here. If permits cannot be obtained, the shippers will have to carry over more lumber than usual, and our schooners will have to seek other charters, probably at considerably reduced rates. One government transport is fixed to load here early next month, but no other transportation arrangements have yet been announced.

Shipbuilding along this shore is as active as the available labor will permit. Six schooners, averaging about four hundred net tons each, are in course of construction—one here, three at Port Greville, one at Spencer's Island, and one at Advocate Harbor. When these are turned off others will take their places in most of the shipyards. The one building here will be followed by a larger one or by two smaller ones, and one of the yards at Port Greville will build two more large schooners. If enough skilled labor could be had, there would be practically no limit to the number of vessels built. The Parrsboro builders could have at least half a dozen contracts on their hands at profitable prices, and the same story is told all along the shore. As an illustration of the present profits of shipbuilding, it may be mentioned that the managing owner of a vessel built on this shore last year refused an offer of seventy thousand dollars for her, while the cost of building her was a little less than half that sum.

Embargoes Restricting Ottawa Trade

Ottawa, Ont., March 27.—(Special to the Canada Lumberman.)—Embargoes upon lumber shipments continue to trouble the Ottawa trade in connection with all but a few local points. The volume of trade is greatly reduced, in consequence. Lumbermen are eagerly hoping for relief. In the meantime lumber prices continue strong and show a number of advances.

The retail trade is engaged chiefly in connection with the shell-box business. The building business has not been so light as it is at present for many years. Local plants are mostly engaged in shell-box production, but this has not been sufficient to keep their regular staffs fully employed, and some men have been laid off.

Only two or three buildings of any size are going up in Ottawa, and they are such as require only a limited amount of lumber. Speculative building has disappeared under the strain of high material and labor costs. There is a good demand for houses, which would develop considerable business if other conditions were less unfavorable. The lumber trade have made up their minds not to expect any extensive building until after the war.

Exporters report that shipments formerly ordered by Argentina and the West Indies have stopped, and that this trade is going to Brazil, because of the difficulty in getting shipping space. The Argentina and West Indian importers are showing a preference for stocks that can be obtained nearer home.

Montreal Trade—Embargoes Still in Force

Montreal, March 27.—(Special to the Canada Lumberman.)—The embargo position continues to be the main factor in the lumber situation. With improvement in the weather, more freight is being moved, but practically nothing is coming into the city except by the C.N.R. The C.P.R. have embargoes on goods west of Port Arthur and on Toronto, Montreal, and points east of Megantic, an exception being made for lumber and other commodities for munition purposes. There are plenty of orders, chiefly for shell box lumber, but for other lumber the orders are held up, and as there is no immediate prospect of the embargoes being lifted, it is doubtful when such transactions will be closed. Very large contracts have been made for British Columbia lumber, and many of these cannot be filled by reason of the impossibility of obtaining shipment.

The situation is aggravated by the continued scarcity of stock, which has had a strong influence in hardening values.

Trade with the United States is also restricted by embargoes here and over the border. This involves the partial stoppage of exports and imports.

The immediate outlook for export to the United Kingdom is not

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rosy. The steamship companies state that they are not yet able to say how much tonnage is likely to be available, neither will they quote rates. One firm with government orders has chartered two neutral vessels.

All indications point to the pulp and paper markets remaining strong for months to come. Shipments of European sulphite to the United States are small and prices here remain very firm. Arrangements have been made for fairly heavy consignments of Canadian pulp for England. Ground wood is buoyant.

Liverpool Market Report

Smith & Tyrer, Limited, Liverpool, Eng., report under date of March 1st, as follows:—The appointment of a Government Controller for softwoods has imparted a new feature into the situation. Apparently the Regulations are to be interpreted in a broad manner, but the restriction of prices is bound to be operative. Neutral owners are hesitating to face the situation, and consequently very little tonnage is being fixed. Hardwoods are unchanged. Spruce deals continue to come forward in small parcels by the liners, but stocks are gradually being disposed of, with small probability of replacement to any important extent for some time to come. The government restrictions have an important bearing on this wood and the situation is not yet clear. Birch has been in better demand. Pine is unchanged. Pacific Coast woods are difficult, and the government is assuming stringent control.

Spruce Situation in Great Britain

In an article discussing the spruce situation in Great Britain the Timber Trades Journal, in a recent issue, says:

"It is not possible yet to know how the spruce market will be affected by the change in the situation this week, and by the evident intention of the British Government to reduce to the lowest possible limit the import of timber. We hear that there are good quantities of wood to be shipped from St. John's, and that prices are advancing; but there is little inclination on this side to purchase, as it is difficult to see any profit if the goods are to be sold at the maximum figures of January. That the fixing of these maximum prices was a wise measure is now very evident. Were it not for this restriction there would now be wild speculation and literally no limit to prices. For the consumption, although becoming smaller, is still fairly steady. Railway companies continue to buy freely, joinery is in request in the North, the engineering and ship repairing shops are running night and day, and the case and box-making trade, in which spruce is largely used, is practically as busy as ever. In spite of the utmost economy, wood, and especially spruce, is such a necessary article that orders for it cannot be suddenly diminished. During the last two years there has been no other wood which has advanced so greatly in general favor. This is partly due to the reduced competition from Russian and Swedish whitewood, but partly also to the particularly suitable nature of spruce for the purposes for which wood is now so largely used.

"It may appear to be quite unnecessary to say anything about prices, but this is not entirely the case. It must be remembered that maximum prices only have been fixed, that these maximum prices are very high, and that there is nothing to prevent reductions taking place if, for instance, the consumption should decrease very considerably This, indeed, appears a likely contingency; and if at the same time the avenues for fresh supplies had remained open, prices might quickly have fallen from the record level to which they had risen at the time when the state took over the control. In some cases, as it is, the extreme limits have not always been reached, and a week or so ago there was a slight tendency on the part of some merchants to take rather less in order to clear out certain lines. But the very drastic measures which are to be taken to restrict the import will naturally make the present supplies more valuable; and, although merchants are not permitted to take any higher prices for their stocks, there is little likelihood now of any concessions whatever being made.

"With reference to the government regulation that in making sales the prices must not exceed those current for similar transactions during the week ended January 31, 1917, it is generally understood in city circles that 'current prices' mean that each seller is entitled to charge that price which he was prepared to accept previous to the above-mentioned date, and no more. If that is so, it will remove many difficulties and misunderstandings. Inter-buying from one merchant to another will, therefore, be impracticable, unless the buyer can purchase at such a price as will enable him to resell within the 'current price.' From what we can gather, rent and interest accruing cannot be added to the price, so that there is no advantage in holding on to stock. It will, nevertheless, be interesting to have an authoritative opinion as soon as possible as to current price, as some dealers who have bought since the army control order was issued are in a difficult position, and it is more than possible, and quite probable, that they will have to turn over the goods thus bought at practically cost price. This should not be a great hardship, for they must have known the risk they were running when increasing their holding, as the 'current price' was not finally defined."

Liverpool and Manchester Stocks

The following report upon Liverpool and Manchester stocks for the month ending February 28th, 1917, is furnished by H. W. Lightburne & Company, Liverpool, England, and their St. John, N.B., representative, John E. Moore & Company, Limited.

Spruce and Birch

Liverpool

	Import			Consumption			Stock		
	1915.	1916.	1917.	1915.	1916.	1917.	1915	1916.	1917.
N.B. & N.S. Spruce & Pine, Stds.	2,980	360	530	2,330	3,880	1,490	3,580	7,180	8,920
Birch Logs, Loads	0	60	0	40	200	140	20	640	740
Birch Planks, Stds.	109	6	109	261	236	48	303	479	327

Manchester

Spruce, Stds.	290	620	850	2,865	2,050	2,250	3,480	11,090	14,350
Birch Logs, Loads	0	0	0	120	200	140	380	780	620
Birch Planks, Stds.	30	0	18	158	125	67	364	503	569

Stocks in Manchester and Liverpool Combined

Spruce

	1913.	1914.	1915.	1916.	1917.	
Manchester	7,550	12,430	3,480	11,090	14,350	
Liverpool	3,010	5,730	3,580	7,180	8,920	
	10,560	18,160	7,060	18,270	23,270	Stds.

Birch Logs

Manchester	340	240	380	780	620	
Liverpool	800	120	20	640	740	
	1,140	360	400	1,420	1,360	Loads

Birch Planks

Manchester	479	436	364	503	569	
Liverpool	674	521	303	479	327	
	1,153	957	667	982	896	Stds.

Canada's Exports of Forest Products

Canada's exports of forest products for the twelve months ending December, 1916, and previous years, were valued as follows:—1916, $55,224,919; 1915, $49,779,509; 1914, $41,871,383; 1913, $42,532,673. Details of the exports of wood and manufactures of wood from Canada during the twelve months ending December, 1916 and 1915, are as follows:—

Articles Exported	1915	Total	1916 To United Kingdom	1916 To United States
	$	$	$	$
Logs	1,315,254	831,826	69,714	761,599
Lumber—Deals, pine	1,288,422	1,503,809	1,439,119	50,348
Deals, spruce and other	9,843,717	9,360,881	7,923,152	287,449
Laths, palings and pickets.	2,356,824	2,237,355	14,299	2,215,459
Planks and boards	22,005,396	26,709,625	2,248,324	22,307,249
Shingles	3,624,218	3,737,410	.....	3,693,434
Timber, square	478,958	183,456	145,062	34,929
Wood blocks for pulp	6,164,113	6,866,669	.....	6,866,669
Wood-pulp	9,279,414	17,344,242	2,266,585	14,275,185
Wood and manufactures of—Total	59,951,741	73,753,955	16,681,942	52,172,963

"How We Hold Our Men"

In the February issue of System, a magazine published in the interests of business efficiency, a leading article is one written by Frank Disston, of Henry Disston & Sons, Inc., on the management of that well-known saw, tool, steel, and file works.

The title, "How We Hold Our Men," is the subject of this article, which describes the methods employed in handling the man problem at the Disston plant. This concern has probably a world's record for holding workers, and Mr. Disston has written in a very interesting manner of the principles on which the record is founded. According to Mr. Disston, the essence of the situation lies in the fact that all employees are treated as human beings and never as machines. Personal contact between all officials and each man who works in the shops has been a successful policy ever since Henry Disston worked at the same bench with his fellow-laborers in 1840, when he laid the foundation of the present organization. Even now no official enters office work without first having had from five to ten years of actual experience in the shops. The entire organization is so closely knit and is on such an informal basis that it most closely resembles a big, friendly family, and "red tape" is an unknown term. The "man policies" now in force are directly responsible, so Mr. Disston writes, for the success which has come to the "Keystone Works."

The article will be of interest to all employers of labor, for although the methods are styled "old-fashioned" by Mr. Disston, yet the phenomenal success with which they have met guarantees their careful consideration.

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Conveyors' Part in Lumber Production

Transportation Problems Inside a Mill—Keeping Lumber Always on the Move from One Machine to Another

Lumber manufacturers are so familiar with the equipment of a modern sawmilling plant that some of them may not think of it as an exceptionally interesting example of the application of up-to-date methods of labor saving by the grouping of machinery and the planning of transportation equipment. If we take time enough to consider the point, however, we are immediately struck with the force of this conclusion, and realize that the sawmill of to-day, when planned by an expert, is a remarkable example of the application of special methods of equipment grouping and of transporting product. Those who have witnessed the operation of such a sawmill do not need to be told this fact, even though they may not give it much consideration. Others in the lumber business, however, among them many of the retailers who are familiar only with the finished product of the mill, not having had an opportunity of visiting one in operation, would find much to interest them in the way in which these problems are handled. From the mechanical engineer's and millwright's point of view, the planning of a sawmill is a matter of exceptional interest. Even the layman who is fortunate enough to have an opportunity of visiting a large sawmill in operation is sure to be fascinated by its great activities and its impressive results. How these results are obtained, why they are worked out in one manner instead of another, and how they all have their intimate relation to the successful conduct of a lumber manufacturing business, while understood by the manufacturer, are not so apparent to others.

In our descriptions of many of the important plants in Canada we have taken it for granted that readers of the Canada Lumberman understand a good deal about these matters, either intimately or in a fairly practical, though perhaps general way, and we have not dealt to any considerable extent with the reasons underlying the arrangement of producing and transportation equipment. There are, however, so many important matters connected with these problems that we feel that lumbermen will take more than ordinary interest in an opportunity to read an article upon this subject written by P. F. O'Shea and published recently in "Factory."

A lumber mill, Mr. O'Shea says, is essentially simple in its operations, which are in the main four—first, sawing a rough-edged slab from the log; second, trimming the two rough edges of the slab to parallel planes; third, planing some of the surfaces of some of the pieces smooth; and, last, squaring the end or "clipping" each piece to the maximum length in even feet. But, in practice, two problems need continual, speedy solution—that of getting the greatest possible amount of lumber from each log, and that of handling the material between machines.

The first is solved by the constant application of the human equation, for the sawyer and the edger must make up their minds while the log or the slab is traveling fast toward them what to cut it into.

For the rest, dependence is placed more and more upon mechanical methods of handling and transporting. From the raw log weighing a ton, which nevertheless must move quickly, to the intermediate products which come too fast to be treated individually, everything must be handled, transported, transferred at strategic points, and even to some extent sorted, by machinery. Again, in order that every possible amount of lumber may be obtained from logs varying greatly in size, the sawyer and edgermen must be at liberty to cut their material into all varieties of dimensions, which follow each other in chance order over the tables of the mill. This makes necessary a pliable, almost a fluid, interchange of routes.

About eight years ago the building of a new mill marked the beginning of an era during which the operation of the plant described here has steadily improved, because the management has been looking for improvements. Two principles have been the guiding ones—first, that if no startlingly cheap way to do a thing recommended itself above other ways, then the right, enduring way would turn out to be the cheapest; and, second, that if no especial right way presented itself, then the cheapest way was right.

Piling Logs for Winter Operation

Raw material in storage was taken as the point of departure. Logs for this plant have always been floated down the river by a big annual drive in summer, and shunted into an extensive back-water pond which almost envelopes the site of the mill. Each summer's drive of logs was left floating throughout the following year in a great, close-packed herd upon the pond. But when ice formed in winter it was out of the question to chop each log free and tow it in, so the plant had to shut down through the cold season—it was what may be termed a fair weather plant. Besides, even in warm weather it took a good deal of labor to tow the farther logs in as the nearer ones were used up, and to hold to a minimum the loss from spring floods. Also it was impossible to increase the yearly capacity of the mill, for that capacity was strictly limited by the area of storage water.

So the plant began the practice of piling the logs, much as you used to pile kindling behind the woodshed. As fast as the logs come in from the August drive they are floated to the end of the pile, gathered into bundles of four or five by a big cable, and dragged up over one another by an aerial cable until the pile stands sixty or seventy feet out of water.

There is no limit to the supply which can be stored in this manner. The logs are concentrated at a point in the pond near the mill, so that in winter a short channel can be kept open through the ice to the gangway.

This change in storage methods would be financially economical even if the old method could get the logs into the mill fast enough for the present rate of consumption—which it could not.

Two slips, or inclined conveyor troughs, lead up from the water, one for big logs, one for small. The smaller slip was so light that floods every spring lifted the lower end and skewed it a greater or lesser distance up the bank. Before work could be resumed, it had to be lifted back again and the twisted parts repaired, which was not only senseless as an anual occurrence, but expensive in time and money. Accordingly, the bottom of the pond was excavated, a heavy cement pier with projecting eye-bolts was built under the foot of the slip, and the latter tied down. Breakage and loss of time waiting for repairs has been eliminated.

Both large and small slips are no longer constructed in the expensive solid wood, metal-sheathed fashion that was formerly thought necessary. They are now built up of planks taken from stock. A twelve-inch plank is laid on each side of the drag chain, a ten-inch is spiked offset upon that, then an eight, a six, and a four, all nailed down together to make a trough of stair-step V-section. In the first one so built, the projecting series of corners were adzed away to a smooth V, but in the next the corners were left in their stair-step shape, and for some years have stood without sheathing yet without more evidences of wear than that the edges are slightly rounded. It has not cost a cent to repair either slip; and when the time of repairing does come, it will be much easier and cheaper, with stock materials.

For the big logs in the larger slip the conveyor is an ordinary heavy chain of six-inch links with dogs bolted on every seven feet to bite into the middle of the log or catch the rear end. At first these dogs were made of cast steel, for strength and wearing-edge. By a little experiment it was found that iron castings of the same shape would wear nearly as long, break only a little more often, and were otherwise just as good. In cast steel each dog cost $2.50; in cast iron, they are to be had in the nearest foundry for 97 cents, so the cast iron dogs are used.

These illustrations are only samples of the systematic improvements which have cut the annual bill for repairs by outside firms down much below what it was formerly. Other details are looked after in the same careful way, which, at least in lump form, has become evident in dollars and cents.

A "slip" seems a bare and uncomplicated structure, without much chance for improvement—just a straight, ascending trough. That was exactly the trouble with the old one—it was so straight and joined the saw-room floor at such an abrupt angle that when a log came up into the mill the log's forward end would rise in the air until the centre of gravity had passed the juncture of slanting trough with horizontal deck, then the log-end would come down with a crash upon the deck. Frequent breakage of the short forwarding chain resulted, which meant a shutting off in the supply of logs until the chain was repaired and replaced.

Therefore, the slip, when rebuilt, was contoured to a convex curve. A total crown of two feet rightly plotted was sufficient to send the log into the mill much more nearly horizontal, so that its arrival on the deck is now noiseless and harmless.

Formerly in case a log was caught midway up the slip, or any other accident happened on it, it was difficult to reach and work at the affected point, for there was only one foot-walk down one side of the trough, and on a level with the top of the V. Men working had to bend over, with the source of trouble half a yard below their feet. Now there are two walks—one down each side. They are on a level not with the top, but with the bottom of the built-up trough, so that more men can work to better advantage and clear the way quicker, in most cases quickly enough so that no actual cessation in the operations of the mill will be necessary.

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Chapter 3—Testing and Grading.
Chapter 4—Methods in the Glue Room.
Chapter 5—Glue Room Equipment.
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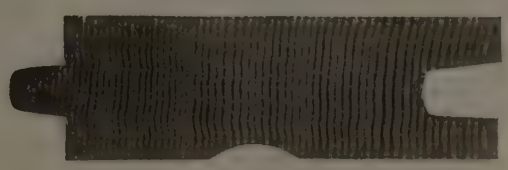

Edge Grain Flooring, B.C. Fir

The deck of the mill, where all the logs enter, in appearance is like a very heavily constructed gable roof. The place of the ridge-pole is taken by the successive logs in the central trough. A chain conveyor of eight-inch flat stirrup links, under lever control by the deckman, carries the log into place in this trough; then the deckman pushes another lever; three "kickers," ends of heavy angle iron operated by an engine below, shoot out of the floor on one side or other of the log, and "kick" it bodily off the ridge to roll down the slanting deck on the opposite side toward one of the traveling carriages.

Much trouble resulted formerly because the chain would occasionally slide up the inclined side of the trough at an unfortunate moment, be in the path of the kicker, and get kicked into pieces. This breakage also stopped work. It was cured without tearing up a single plan, by lining each side of the trough with an inch board down not quite to the edge of the chain, so that the chain now travels in a flat channel an inch deep whence it never strays. But it saves a round sum—the cost of many idle hours, for which the whole mill force had to be paid.

So surely do all these improvements show in aggregate that the weekly statistics of shut-down time now exhibit a rather wonderful betterment, saving wages of idle time, repair bills, and interruptions which break the regularity, and therefore the momentum and efficiency, of steady work.

Systematizing Operations in the Mill

The head sawyer stands in the space between the end of the deck and the main band-saw. A traveling carriage is drawn rapidly back and forth past the band-saw, stopping to take its load from the deck. It is found better to have the movements of the carriage controlled not by the two men riding on it, but by the sawyer on the floor, through one of his levers. By a second lever he raises big steel claws through the floor of the deck to juggle the log into position against the carriage for his assistants to "dog" it into place.

Floors in a sawmill are used as a tool, and all the motive machinery, many of the saws while at rest, and the greater part of the conveyors, are out of sight underneath. In this respect this mill is no different from others, except that every arrangement has been made for safety and simplicity—the whole long saw-room is neat almost to bareness throughout.

Of course, the first cutting from each log is covered with a brown skin of inner bark, and is useless. At the end of the carriage stroke this cutting is allowed to go on straight ahead over a "table" of "live" rolls—a row of struts carrying level cylinders rotated each in its place by power, which form an active conveyor. Thirty feet farther on the live rolls give place to a table of "worm" rolls—cylinders having a slight spiral ridge around the surface, so that as the waste slab advance it is gradually also carried out to the edge of the table until it falls off onto the floor. The floor at this point has moving chains set into it, with nubs projecting every few feet to catch the waste lumber when it falls and slide it along toward the side of the building.

In the side wall a battery of circular saws spaced four feet apart are constantly rotating, past which the floor chains force the waste slabs so that each stick is sectioned into four-foot lengths for easier handling. These pieces slide down a chute into a conveyor which, through a contract of sale, takes them to a neighboring mill and feeds them into a chipper for conversion into furnace fuel. This waste is never touched by hand, individually, from the forest until it drops into the other company's fires.

However, when usable slabs come from the saw, as soon as one gets out upon the first table of live rolls these are stopped by a control-lever. Between the inner ends of the rolls a series of frames or trunnions is placed, each frame carrying a small chain-conveyor. Normally these are some inches below the theoretical surface of the "table," but now they are raised to engage the slab, lift it off the rolls, and bring it over transversely to deposit it upon a parallel table of "dead" rolls, which are similar cylinders without motive power, to facilitate feeding the slab along by hand.

Of course, all this may be done very quickly, without even stopping the live rolls. The dead table leads to the edger, whose two saws, an adjustable distance apart, trim the slab into lumber. The brown waste-edgers re diverted to fall upon the same floor-chains which carry off the first waste, while the timber goes straight ahead, over another table of live rolls down the centre of the mill.

This arrangement, carriage and saw and edger, live and dead and worm rolls, is duplicated on the other side of the mill, the waste tables flanking the walls, the product traveling down the centre, the same floor-chains, crossing at right angles the entire width of the mill to serve both sides.

Beneath the floor a sawdust conveyor catches the dust in a funnel by gravity, crosses from one main band-saw to the other, then turns to come back under the two edgers, and out to the company's own boiler room. A sufficient supply of dust is available, or unavoidable, to give power for the machines and conveyors of the entire mill.

After each piece of lumber had come from the edger it went formerly either to the planer to be smoothed or past the planer if its rough finish was good enough. At any rate, that was the last machine it met except those for squaring the ragged ends. That meant that if inch boards were wanted, for instance—and boards are always in demand—the main band-saw must busy itself cutting them, with the big carriage moving the entire log its own length and back for each thin board.

That was not only incongruous, but it was a waste of momentum, time, and power, and lessened the number of logs which could be handled over the carriage in a day. Part of the profit on boards was nullified by their being an obstruction to other work, so that fewer boards (a most desirable product), as well as a less total number of feet of lumber, were produced.

So the planer was taken off the main floor, relegated to somewhere else, and a re-saw was put in its place near the lower end of the room, in a central position between the roll-tables leading from the edgers. Standing at a level is a man who knows lumber dimensions and values with the instinct of long training. He can elevate a cross-transfer chain under the live tables, pick off any piece of stock, transfer it, chalk upon it the required dimensions as it passes him, and send it over in front of the re-saw. There it can be worked into boards or any other desired shape, while the main mill is uninterruptedly busy with bigger stuff.

The average time of a log's occupancy of the traveling carriage has been much reduced, as only the major operations are performed upon it. This has relieved the output from restriction at the initial point, and the daily capacity of the mill has increased by 15,000 feet.

Grading and Piling of Hardwoods

Editor Canada Lumberman:— Huntsville, Ont.

A very practical article recently appeared in the Canada Lumberman from Geo. C. Robson, which attracted my attention, because it contained much that is of practical interest to the trade.

I was chiefly interested in what he had to say about the better grading of the product of hardwood logs, but am sorry that he did not suggest any solution of the difficulties. Some of these matters have occupied my attention a great deal.

Mr. Robson tells us that the grading of pine is done much better than the grading of hardwoods. To me the reason for this seems to be simple, as in cutting pine we have only three kinds to consider, whereas in hardwoods I have known as many as sixteen kinds, each called for to some extent in order to supply different markets.

Then the standard thicknesses for hardwoods are eighteen in number, but these may be reduced about two-thirds for practical purposes, making six thicknesses, which, with 16 different kinds of hardwoods gives us a total of 96 different grades or woods to be considered. In each of these we will have, say, in the 1 inch, such grades as Nos. 1, 2, 3, 4 and Fas, five in all; but from 5/4 up we try to cut only No. 1 common and better, reducing each to two grades, and applying this plan up to and including 4-inch. Above 4-inch we assume the stocks are cut only to order and go as one grade. If you figure this out you will find that you get 23 piles, allowing the No. 4 to be piled in two piles. Multiplying the 96 by 23 gives us 2,208, and multiply this by 2 for length and you get 4,416, the number of piles we must have open, which shows conclusively the impracticability of anything like fine grading where mixed hardwood logs are manufactured. Where the logs can be sorted and cut, only two or three kinds at once, we are able to eliminate much of the difficulty.

Then Mr. Robson makes some suggestions for covering piles which fail to agree with my own views and experience. Commencing at the bottom of a pile the base should be of timbers, with blocks on top so that air can circulate from the back and front as well as from the sides, and it is also just as important to have a good space between the cover and the pile at the top, for the same reason. Further, I cannot agree with Mr. Robson that No. 3 and 4 hardwood makes the most economical roof. Although such a roof would not cost so much, it would depreciate, relatively, to a greater extent and would not make nearly so waterproof a roof. Mill cull pine, in my estimation, is the most economical roof for piles, as, if it is handled carefully, the depreciation is practically nil, and it keeps the pile dry, if it has been properly put on. Further, I do not follow his formula, to put three crossers on top of the cover to hold it in place. Of course, he can say, like the hen scratching in a pile of pure wheat, that they all do it, but I venture to say that if they observe the consequences carefully they will discontinue this practice, as a cross piece acts as a dam during heavy rain and floods the water in under the battens. Then it runs in and lodges along the back cross strips.

Instead of this I would suggest one wide board close to the front of the pile so that any water forced in will fall clear. For the back, use wire, cut long enough to make a loop at each end to pass a stick through extending down a few courses on the side. This will cling closer. Moreover, when a board is pulled down tight on the end it springs slightly up in the middle. If you try the wire ones you will never use anything else.

As to co-operation, it cannot be too close. The sawyer should have all the information that both the sales manager and the inspector has and ten times as much of his own. Even then, he will miss some important point, although he may sit up late at nights and between services on Sunday to think out the best ways to get the highest values from the material that passes through his hands.—A. P. Ebert.

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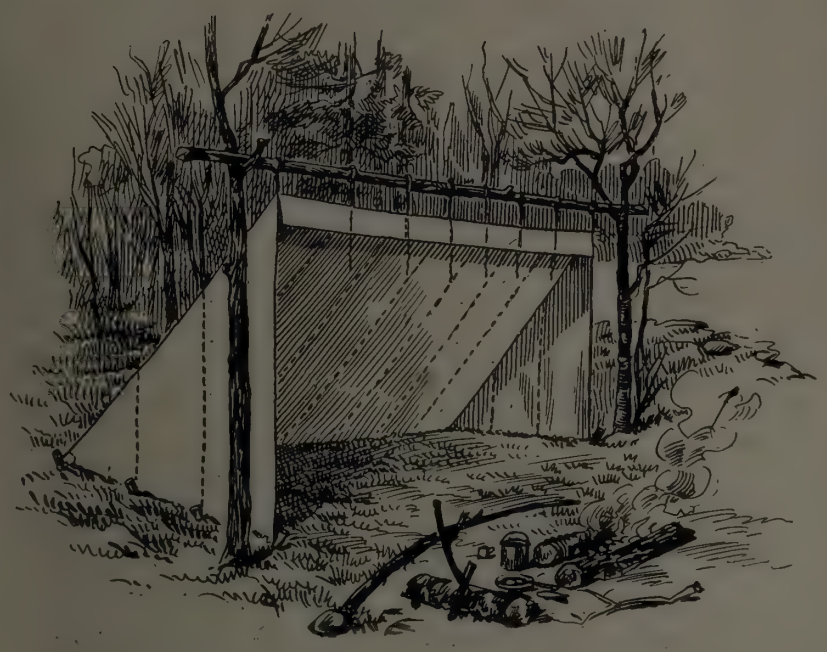

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EDGINGS

Ontario

The National Shipbuilding Company, Limited, Goderich, Ont., has obtained a charter.

Fire recently destroyed the large sawmill belonging to the Pearce Company, Limited, Marmora, Ont. The mill had been undergoing extensive improvements preparatory to the spring opening. The loss is estimated at $25,000, with no insurance.

The Bagoda Manufacturing Company, Limited, has been incorporated with head office at Toronto and capital stock of $15,000, to carry on business as manufacturers and dealers in pulp and paper. The provisional directors are W. A. McFarlane, S. Tutty and S. Ross.

According to a report from Port Arthur, Ont., there is a possibility that another pulp mill will be erected at that place, those interested being the parties who were the successful tenderers recently for the Pic River limits, the name of the tenderer to whom the limits were sold being Samuel Marks. The report states that the mill will be located on a site belonging to Sir Wm. Mackenzie and J. J. Carrick, M.P.

The Canadian Cooperage Company, Smith's Falls, Ont., has purchased a large tract of timber in Northern Ontario. The timber will be cut and brought to the plant for manufacture. This company states that it is open to buy elm and basswood timber standing in the tree or delivered in logs to the mill yard, or any railway siding on the Canadian Pacific Railway or Canadian Northern Railway, tributary to Smith's Falls.

Mr. A. G. Pounsford, general manager of the Port Arthur Pulp and Paper Company, who is now at Port Arthur, is making arrangements for the immediate commencement of building operations on the mill. It is expected that work will be commenced within a day or two. Tenders for construction will be called for at once and will be closed and awarded early in April. Mr. Pounsford states that the company will also close contracts at once for all the wood they can acquire. They want 15,000 cords at least, and as much more as they are able to obtain. This will be stored until the mill is ready for operation. Offices have been opened at Port Arthur. Mr. A. G. McCormack has resigned as secretary of the Port Arthur Board of Trade to join the Port Arthur Pulp and Paper Company.

Eastern Canada

The Continental Box and Paper Company, 640 St. Paul Street, Montreal, P.Q., recently suffered a loss by fire.

The directors of the Laurentide Company, Limited, have declared a dividend of 2½ per cent. for the current quarter, making 10 per cent. for the year, an increase of 2 per cent.

The Montreal Stave Manufacturing Company, Montreal, Quebec, has been organized with a capital stock of $50,000. Those interested are Harold Wooland, Walter H. Thomson and Walter F. Lee.

The St. John Shipbuilding Company is being organized with a capital of $1,000,000, to operate under a Dominion charter and construct ships at St. John, N.B. The company will engage first of all in the production of wooden vessels and subsequently will take up the steel vessel industry.

The Pontiac Lumber and Pulp Company has been incorporated with head office at Makamik, Abitibi, P.Q., and capital stock of $49,000, to carry on business as manufacturers and dealers in timber, lumber, shingles, pulpwood, etc. Among those interested are O. LeBrun, E. Allard, L. Arseneault, D. Marchand, of the town of St. Tite, P.Q.

The strike of employees at the Ha Ha Bay Sulphite Pulp Company near Bagotville, P.Q., has come to an end. It will be recalled that the strikers seized the works for a time. They were persuaded to leave the premises under the promise that they would not be prosecuted. It is understood that the erection of the plant will be suspended until a little later on this year.

O'Brien Limited, recently incorporated with head office at South Nelson, N.B., is a continuation of the business carried on by John O'Brien since 1869. The firm manufacture lumber and deal in lumber and general merchandise. The members of the O'Brien family have been formed into a joint stock company with a paid up capital of $49,000. Most of the lumber produced is exported.

Geo. E. Dupee, a well-known timber cruiser, of Boston, Mass., visited Toronto during the third week in March and called upon the Canada Lumberman. Mr. Dupee has been looking over some hardwood timber limits on the Madawaska waters, in behalf of a United States concern which is considering a purchase. He has already visited these limits on a previous occasion and formed a good opinion of the timber standing upon them. During his present visit he will make a more detailed examination.

H. V. Berry, lumber manufacturer, Fort Plain, N.Y., is looking for a place in Eastern Canada for locating his band mill. For the past five years Mr.

Berry has been operating an 8 ft. Filer and Stowell band mill in the Catskill Mountains, cutting spruce timber, his output being about 40,000 feet per day. He has finished operating at his present location and, having always made a specialty of spruce, has decided to locate in Canada, if he can find a suitable location. He is thinking of adding a resaw in order to double the output of his mill. Mr. Berry has not yet made definite enquiries regarding a new location, but reports that he prefers to obtain a site on a good drivable river in a town with good railroad connections where he could contract for logs in the open market, or purchase limits. If conditions are right he will also operate a box factory in connection with the sawmill.

Western Canada

The Wheatland Lumber Company, Limited, Herbert, Sask., has been incorporated.

The Fritz-Stormont Lumber Company, Limited, Ruby Lake, Sask., has been incorporated.

The McLelan Lumber Company of Ontario will commence operations at Ladner, B.C., during April. Their mill will turn out 125,000 feet per day.

A sawmill capable of turning out 40,000 feet of lumber a day is to be established at Port Alberni, B.C., by R. L. Fraser, who is now negotiating with the Esquimalt & Nanaimo Railway for a site.

The new shingle mill of the Dominion Cedar & Shingle Company at New Westminster is ready for operation. It has a capacity of 300,000 shingles every twenty-four hours. This is the name of the company under which the Marsh, Hutton Powers Company are operating.

The Grain Growers Grain Company, Grain Exchange Building, Winnipeg, Man., are contemplating the erection of a lumber mill to cost $150,000. It is understood that the company are arranging to build the mill upon a timber limit sixty miles east of Fort George on the Grand Trunk Pacific. The mill will have a capacity of 20,000,000 feet of lumber per year.

The new sawmill at Nanoose Bay, B.C., operated by the Straits Lumber Company, has commenced operations and steady shipments are going forward. The mill has a capacity of 100,000 feet a day. A considerable force of men is employed and the outlook for a profitable season's run is said to be of the brightest. The mill and plant were formerly under the control of the Newcastle Lumber Company, but they had been idle for about a year.

The Rainy River Pulp and Paper Company has been registered as an extra-provincial company to carry on business in the province of British Columbia as lumbermen and to manufacture lumber, timber, logs, etc. The head office of the company is at Dover, Delaware, U.S.A., and the provincial office is at 222 Standard Bank Building, Hastings Street, Vancouver, B.C. John McCrary, Vancouver, is attorney and the capital stock is $1,000,000.

The Cameron Lumber Company, Limited, have secured a lease of the mill of the Canadian Puget Sound Lumber Company, Limited, at Puget Sound, B.C., (in liquidation) for a period of four months, with an option to renew for a further period of six months, for the purpose of manufacturing ammunition boxes for the Imperial Government. The Puget Sound Lumber Company have also obtained leave to sell the fallen logs at Jordan River which have been there for the past three years. The lease includes the logging equipment of the Canadian Puget Sound Lumber Company at Jordan River.

The Capilano Timber Company is preparing for extensive logging operations on the north shore of Burrard Inlet, back of North Vancouver. In 1908 timber in the valley of the Capilano River was purchased by the Nickey interests of Memphis, Tennessee, the available timber being estimated to be 280,000,000 feet. In the Capilano Timber Company, which was afterwards formed, principal shareholders were S. M. Nickey, A. B. Nickey, W. E. Nickey and C. A. Marsh, the last named being of Chicago. Arrangements have been completed with the council of North Vancouver to operate a logging railway on certain streets of the city, and a large section of waterfrontage on Burrard Inlet has been secured.

Atlantic Lumber Company Buys Another Mill and Timber

The Atlantic Lumber Company, Inc., Boston, Mass., who conduct a wholesale hardwood business at Toronto, have recently purchased the band mill, railroad, equipment and standing timber of the Valley Creek Lumber Company at Fonde, Ky. The timber consists chiefly of yellow poplar and white oak, and the Atlantic Lumber Company will specialize in the manufacture of white oak dimension timbers. The mill will commence sawing in a few days.

There are three things which cannot be too strongly emphasized in connection with retail lumber service. These are:

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1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable.	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

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Wistar, Underhill & Nixon 11
Wuichet, Louis 7

Y

Yates Machine Company, P. B ..

"Wilson Bros." Flooring and Trim

"Wilson Bros." stamped on every piece of this flooring stands for Quality, Look for the name. Hardwood and Pine. **Interior Finish of All Kinds.** Also Hardwood Veneer Doors to detail. We are equipped to fill large or small orders on short notice.

WRITE FOR PRICES

Wilson Bros., Limited - Collingwood, Ont.

GOODHUE BELTING For Saw and Planing Mills

In a Goodhue Belt you get only the best leather with the stretch taken out of it. A Goodhue Belt will always run evenly and "clings" to the pulley transmitting 100% of your power

For the wet places in the mill we have a special waterproof leather belt—"Acme." Other Goodhue Belts are "Extra" and "Standard" recommended according to the conditions under which the belt has to run.

Goodhue Belts stretch less than any other belt by 15 to 25 per cent.

Send for prices and particulars

J. L. Goodhue & Company, Limited

DANVILLE, QUEBEC

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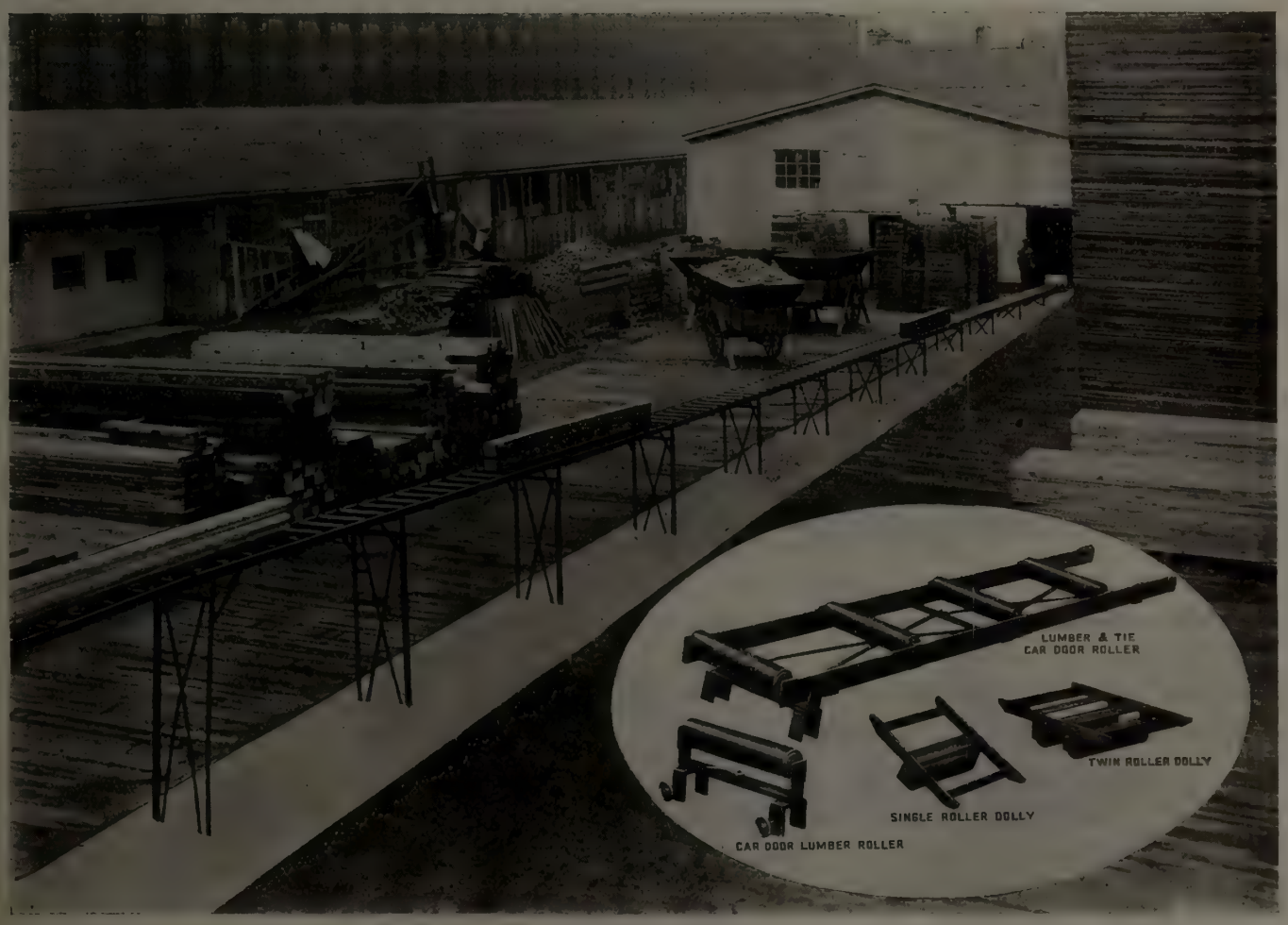

The Power of Gravity is Free—Use it to handle Your Lumber

Our Steel Ball Bearing Gravity Lumber Carrier conveys boards, siding, flooring in bundles, timbers, etc., upon a grade of 4% (4 ft. fall in 100 ft.) The sensitive bearing moves the lumber.

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Canadian Mathews Gravity Carrier Company, Limited

484 Richmond Street, West, TORONTO

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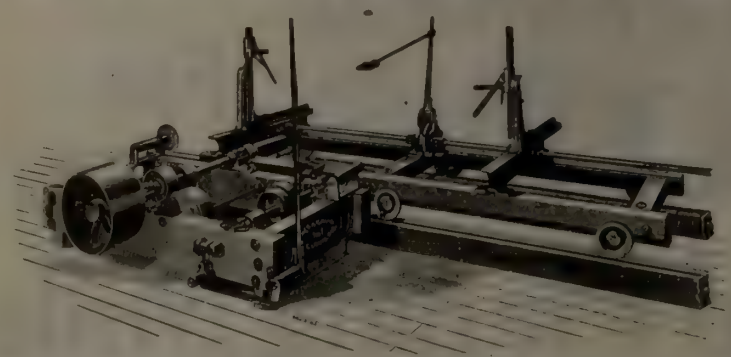


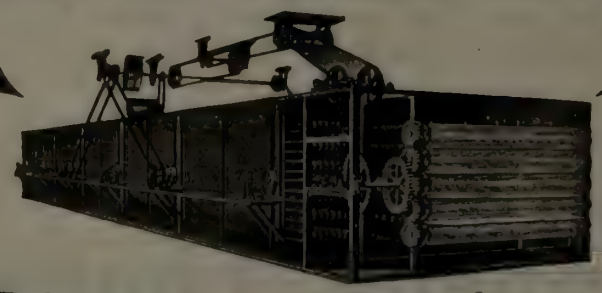
Manufacturers of the best quality of

Circular Sawmills and Sawmill Machinery

We specialize on mills of from 5,000 to 40,000 feet capacity.

HAVE YOU OUR CATALOG?

PROCTOR VENEER DRYER



Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

Send for catalog and list of users

The Philadelphia Textile Machinery Co., Philadelphia

Install a KRAFT SODA MILL

CANADA has another big war opportunity: Great Britain needs more wood pulp. Install a small Soda Pulp Plant and Supply this need by converting your Slats, Tops, Bottoms and waste wood around the Saw Mill into pulp. We can dispose of any amount. Previous sources of supply in Sweden, etc., have recently been withdrawn and Canada now has a free field in Great Britain to market unlimited quantities of wood pulp. We can arrange contracts for long periods.

The cost of installing plant is small and you make a sure profit from waste material.

Write to-day for further details

Becker & Co., Ltd.

34-40 LUDGATE HILL

LONDON, E. C.

ENGLAND

The Largest Importers of

WOOD PULP

We have specialized in Canadian Pulp and have imported ninety per cent. of the pulp supplied to Europe since 1899.

Sole agents for

CHICOUTIMI PULP CO., Chicoutimi, Canadian Hot Ground Spruce.

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For Speed, Ease and Economy in Bucking and Felling

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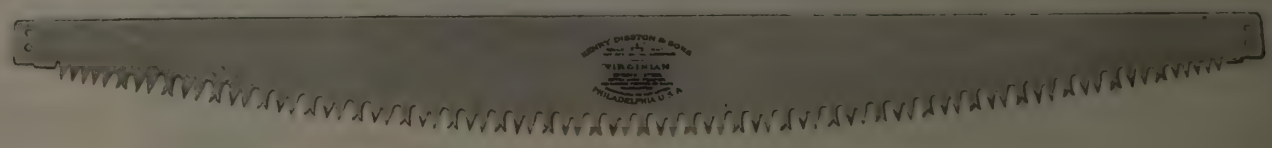
CROSS-CUT SAWS



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Sizes and types for every condition of service and sectional preference, all backed by a saw-making experience of more than three quarters of a century.

Get Our Free Cross-Cut Saw Booklet

HENRY DISSTON & SONS, LTD.

2-20 Fraser Avenue -:- -:- TORONTO

LINK-BELT

For Every Service

in elevating, conveying and power transmission.

Write for General Catalog No. 110, illustrating the entire Link-Belt Line, and quoting list prices.

This trade mark >——< on every link of the genuine Link-Belt

CANADIAN LINK-BELT CO., LIMITED

265 WEST WELLINGTON ST. - TORONTO

A. R. Williams Machinery Company, Limited, Vancouver, B. C.
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Are made in over two hundred styles and combinations to meet every known requirement. We will assume entire responsibility in selecting the proper styles and combinations of our packings to work successfully and economically under any stated condition; and if goods are not wholly satisfactory to purchaser we will refund promptly the cost of same. A card will bring our new catalog which fully describes our various styles of packings.

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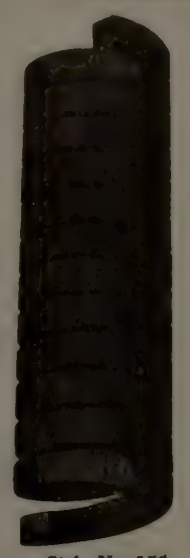

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The Garlock Packing Co.

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Branches: Calgary, Montreal

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Use Hoe Chisel Tooth Saws

Hoe Chisel Tooth Saws are undeniably good. They are manufactured in a plant that has specialized on this product for ninety-one years. Every process is time tested and approved by customer recommendation. Our number 2½ Pattern is designed especially for cutting heavy steam feeds in mills requiring a very fast cutting, fine toothed saw. The No. 2½ is without a doubt the smoothest cutting saw made today. Also used with excellent results on Edgers, Bolters and Lath Machines. Made in thin gauges for smaller saws and also grooving saws.

Write for our catalogue and prices at once.

R. HOE & CO. - 504-520 Grand Street NEW YORK CITY

We also make the best solid tooth saw

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better.	$50 00	52 00
1¼ inch No. 1 cuts and better.	60 00	62 00
2 in. No. 1 cuts and better	62 00	64 00
1 in. No. 2 C. & B.	50 00	52 00
2 in. No. 2 cuts and better	52 00	54 00
1 in. No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1 in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing ..	35 00	36 00
1 x 12 common and dressing...	38 00	40 00
1 x 10 and 12 mill cull stocks.	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	40 00
1 x 8 box and common		30 00
1 x 10 inch box and common.		32 00
1 x 12 inch box and common.		32 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	30 00	32 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill-run 1-in. and 2-in.	28 00	30 00
Spruce mill culls	25 00	26 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		22 00
1 x 6-in. x 9 to 16 ft.		26 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		27 00
2 x 4 to 12 in., 12 and 14 ft. .		26 00
2 x 4 to 12-in., 18 ft.		30 00
2 x 4 to 12-in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in. B.C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		36 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		37 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		37 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		38 00
10x20, 18x20, up to 32 ft.		38 50
6x18, 8x18, up to 32 ft.		38 50
6x20, 8x20, up to 32 ft.		39 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain..		39 00
Fir flooring, 1 x 4, edge grain..		42 00
Fir flooring, 1 x 4, flat grain ..		33 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1, 4-ft. pine lath...		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath.		4 25
1½-in. mill run hemlock lath..		4 00
XX B. C. cedar shingles		2 55
XXX 6 butts to 2-in.		3 60
XXXXX		4 05

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, com. and bet.....	40 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4..	60 00
Birch, 1st and 2nds, 4/4	44 00
Birch, No. 1 com. and bet., 4/4	35 00
Birch, 1st and 2nds, 6/4 and 8/4	46 00
Birch, 1st and 2nds, 10/4 and 12/4....	60 00
Birch, 1st and 2nds, 16/4	62 00
Basswood, 1sts and 2nds, 4/4	48 00
Basswood, No. 1 com. and bet., 4/4....	35 00
Basswood, No. 2 and 3, common	21 00
Basswood, 6/4 and 8/4, 1sts and 2nds.	48 00
Basswood, 6/4 and 8/4, com. and bet..	40 00
Basswood, 4/4, No. 2 com. and bet....	34 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft Elm, No. 1 com. and bet., 4/4	35 00
Soft Elm, No. 2 and 3 common	19 00
Soft Elm, 6/4 and 8/4, 1 and 2	45 00
Rock Elm, 1sts and 2nds, 6/4 x 8/4...	55 00
Rock Elm, No. 2 com. and bet. 6/4 and 8/4	40 00
Soft Maple, 1sts and 2nds, 4/4	33 00
Soft Maple, com. and bet., 4/4	25 00
Soft Maple, 6/4 & 8/4, 1sts and 2nds..	35 00
Hard Maple, 1sts and 2nds, 4/4	40 00
Hard Maple, common and better, 4/4..	33 00
Hard Maple, 12/4 & 16/4, 1sts and 2nds	50 00
Red Oak, plain, 1sts and 2nds, 4/4	62 00
Red oak, plain, No. 1 com., 4/4	43 00
Red Oak, plain, No. 2 com., 4/4	32 00
Red Oak, plain, 1sts and 2nds, 6/4 & 8/4	68 00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White Oak, plain, 1sts and 2nds, 4/4..	62 00
White Oak, plain, No. 1 com., 4/4.....	42 00
White Oak, plain, No. 2 com., 4/4.....	32 00
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	60 00
Red and White Oak, plain, No. 1 com. 5/4 and 6/4	45 00
Red and White Oak, plain, No. 2 com. 5/4 and 6/4	35 00
Red and White Oak, plain, 1sts and 2nds, 8/4	70 00
Red and White Oak, plain, No. 1 com. 8/4	50 00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00
White Oak, ¼ cut, 1sts and 2nds, 4/4.	89 00
White Oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	92 00
White Oak, ¼ cut, No. 1 common	57 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds. ..	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$55 00	57 00
1¼-in. and 1½-in. x 8-in. & up.	64 00	67 00
2-in. x 7 in. and up	65 00	68 00
No. 2 cuts 2 x 8 in. and up...	42 00	45 00
Pine good strips:		
1-in.	42 00	44 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	53 00	56 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	45 00
1-in. x 4-in. to 6-in.	32 00	34 00
1¼-in. and 1½ in.	53 00	55 00
2 in.	54 00	56 00
7-in. to 9-in. A sidings	27 00	30 00
Pine, No. 1 dressing sidings ...	35 00	38 00
Pine, No. 1 dressing strips	30 00	33 00
Pine, No. 1 dressing shorts....	28 00	30 00
Pine, 1-in. x 4-in. s.c. strips....		30 00
Pine, 1-in. x 5-in. s.c. strips....		31 00
Pine, 1 in. x 6 in. s.c. strips		33 00
Pine, 1-in. x 7-in. s.c. strips.....		30 00
Pine, 1 x 8 in., s.c., 12 ft. to 16 ft.		34 00
Pine, 1-in. x 10-in. M. R.		36 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	31 00	32 00
Pine, s.c. shorts, 1 x 4 to 6 in..	24 00	26 00
Pine, s.c. and bet., shorts 1 x 5		25 00
Pine, s.c. and bet., shorts, 1 x 6		27 00
Pine, s.c. shorts, 6'-11', 1"x 10"		30 00
Pine box boards:		
1"x 4" and up, 6'-11'		24 00
1"x 3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1 in. x 4 in. and up, 12-ft. and up	25 00	27 00
Pine, mill culls stock, 1 x 12 ..	28 00	30 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		22 00
O. culls 1 & w p	15 00	16 00
Red Pine, log run:		
mill culls out, 1-in.	26 00	28 00
mill culls out, 1¼-in.	26 00	28 00
mill culls out, 1½-in.	26 00	28 00
mill culls out, 2 in.	28 00	30 00
mill culls, white pine, 1"x 7" and up	21 00	26 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	18 00	23 00
1"x 4" and up, 12'-16'	26 00	27 00
1"x 9"-10" and up, 12'-16'..	27 00	33 00
1¼"x 7" 8-9" and up, 12'-16'	27 00	33 00
1¼"x 10" and up, 12'-16' ...	27 00	34 00
1½" & 2"x12" and up, 12'-16'		36 00
Spruce, 1-in. clear (fine dressing and B)		37 00
Hemlock, 1-in. cull	15 00	18 00
Hemlock, 1-in. log run	21 00	22 00
Hemlock, 2x4, 6, 8, 10, 12/16'..	23 00	26 00
Tamarac	19 00	20 00
Basswood, log run, dead culls out	22 00	24 00
Basswood, log run, mill culls out	23 00	26 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60

Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$56 00
1 in., 8 in. and up wide	65 00
1¼ and 1½ in. and up wide	67 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	52 00
6/4 x 8 and up No. 1 and better	63 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	54 00
8/4 x 6 and up No. 2 and better	56 00
6/4 x 6 and up No. 3 and better	48 00
8/4 x 6 and up No. 3 and better	52 00
No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1¼ in., 8 in. and up wide	59 00
1½ in., 8 in. and up wide	59 00
2 in., 8 in. and up wide	62 00
2½ and 3, 8 in. and up wide	75 00
4 in., 8 in. and up wide	85 00
No. 2 Cuts	
1 in., 6 in. and up wide	34 00
1¼ in., 6 in. and up wide	47 00
1½ in., 6 in. and up wide	47 00
2 in., 6 in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide....	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1-in. x 4-in.	29 00
1-in. x 5-in.	29 00
1-in. x 6-in.	30 00
1-in. x 8-in.	31 00
1-in. x 10-in.	33 00
1-in. x 12-in.	35 00
1 in. x 13 in. and up	35 00
1¼, 1½ and 2 in.	32 00
No. 1 Barn	
1 inch	34 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	30 00 36 00
1¼, 1½ and 2-in.	32 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	29 00 33 00
No. 1, 1, 1¼, 1½, 2-in.	29 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	24 00 27 00
No. 2, 1¼, 1½, 2-in.	24 00
Mill Culls	
Mill run culls, 1-in.	23 00
1, 1½, 1½ and 2-in.	24 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 85
No. 2, 48-in. pine	4 60
No. 1, 48-in. pine	5 00
No. 3, 48-in. pine	4 15
Hemlock Lath, 48-in.	4 15

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension.	S. 1 S. and 1 E.			
	6 ft.	8 ft.	10 ft.	14 & 16 ft.
2 x 4, 6, 8 ..	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.	
2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 4 6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12; 8 16 ft.	28 50
2 x 10 and 2 x 12; 18, 20, 22 ft.	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50
No. 1 Common Boards.	
4 inch	23 00
6 inch	25 50
8, 10, 12 inch	27 50
Mixed widths	26 50
Flooring.	
4 or 6 inch No. 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	26 00
Shiplap—Finished.	
6 inch	24 00
8, 10 and 12 inch	25 00
Siding.	
6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00
Lath.	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed) ...	4 50

PINE—ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 10
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft. ...	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft. ..	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft. ..	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft. ...	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft. ..	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft. ..	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft. ..	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	37 00	
Nos 1 and 2, 1 x 4 in., E. G.	40 00	
Nos. 1 and 2, 1 x 6 in., E. G.	37 00	
Nos. 1 and 2, 1 x 4 in. F. G.	30 00	
Nos. 1 and 2, 1 x 6 in., F G.	35 00	
No. 3, 1 x 4 in.	28 00	
No. 3, 1 x 6 in.	33 00	
No. 3 Edge grain $3 per M. extra.		

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ⅜ x 1½ in. x 4 ft.	5 00

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White Pine

Wholesale Selling Price

Uppers, 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 54)

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No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	20 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	36 - 38	23 - 25	14 - 16
5/4 to 8/4	42 - 45	28 - 30	16 - 18
10/4 to 16/4	48 - 52	33 - 35	20 - 22

RED BIRCH

4/4	50 - 52	30 - 21	18 - 20
5/4 to 8/4	54 - 56	32 - 34	18 - 20

SAP BIRCH

4/4	45 - 47	30 - 32	18 - 20
5/4 and up	50 - 52	32 - 34	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18	
5, 6 & 8/4	36 - 38	25 - 27	16 - 18	

BASSWOOD

4/4	38 - 40	28 - 30	18 - 20	
Thicker	40 - 42	30 - 32	20 - 22	

PLAIN OAK

4/4	52 - 54	33 - 35	19 - 21
5/4 to 8/4	51 - 53	20 - 31	17 - 19

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	56 - 58	31 - 33	18 - 20
10/4 and up	69 - 81	43 - 45	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in..	109 00
Selects, 1 to 2 in.	99 00
Fine common, 1 in.	71 00
Fine common, 1¼ to 2 in.	76 00 78 00
No. 1 Cuts, 1 in.	69 00
No. 1 Cuts, 1¼ to 2 in.	69 00 74 00
No. 2 Cuts, 1 in.	42 00
No. 2 Cuts, 1¼ to 2 in.	53 00 56 00
Barn Boards, No. 1, 1 x 12	54 00
No. 1, 1 x 10	45 00
No. 1, 1 x 8	42 00
No. 2, 1 x 12	47 00
No. 2, 1 x 10	42 00
No. 2, 1 x 8	40 00
No. 3, 1 x 12	39 00
No. 3, 1 x 10	37 00
No. 3, 1 x 8	35 00
Canadian spruce boards	25 00 27 00
Spruce, 10 in. dimension	36 00
Spruce, 12 in. dimension	37 00
Spruce, 9 in.	35 00
Spruce, 8 in. under dimen.	34 00
10 and 12 in. random lengths, 8 ft. and up	38 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 8 feet and up	30 00 31 00
All other random lengths, 7 in. and under, 8 ft. and up	31 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	24 00 25 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	2 00
1½ in. spruce laths	3 60
1½ in spruce laths	4 25

New Brunswick Cedar Shingles

Extras	4 25	4 70
Clears	3 85	4 00
Second clears	2 40	2 80
Clear whites	2 00	2 15
Extra 1s (Clear whites out)	1 50	1 65
Extra 1s (Clear whites out)	1 40	1 55
Red Cedar Extras, 16 in. 5 butts to 2 in.		4 23
Red Cedar Eurekas, 18-inch 5 butts to 2 in.		4 45
Red Cedar Perfections, 5 butts to 2¼		5 22
Washington 16-in. 5 butts to 2 in. extra red cedar		5 76

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Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

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(Continued on page 58)

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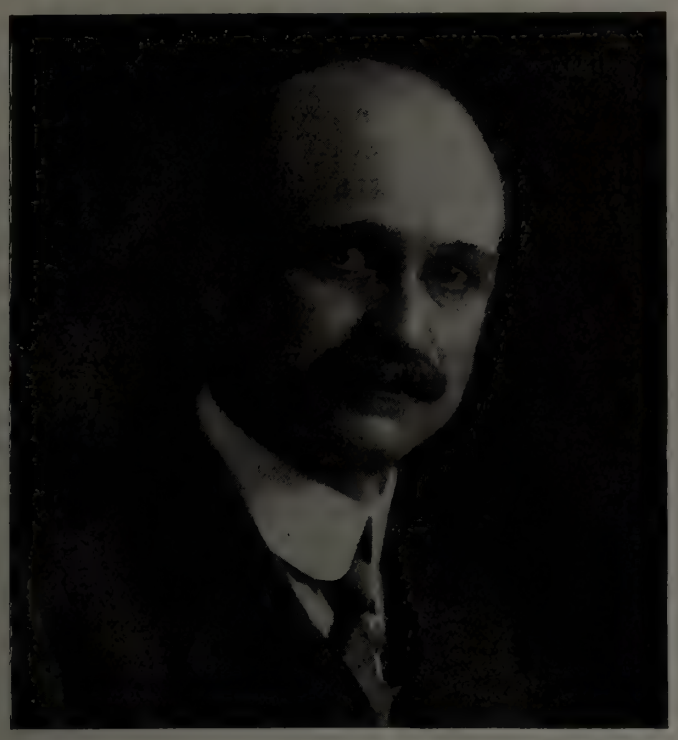

E. C. Mershon has been recognized as the authority on all matters pertaining to the sawing of wood with a Band Resaw. Purchasers of Mershon Band Resaws have the benefit of his experience.

WM. B. MERSHON & CO.
SAGINAW, MICH.

We Manufacture the Following Well Known Brands

"Elkco," "Elk Steel," "St Marys," "Keystone" and "Rotex"

FIRE BRICK

Each brand is specially suited to a separate use. We have the experience to manufacture and supply the finest grade of Fire Brick for the varying uses of the Lumber Industry. The same brick may not meet the requirements of your Dutch Oven and of your Refuse Burner.

This is a product that should have your most careful attention. When so much depends directly on the successful operation and dependability of Fire Brick in your plant, it will repay you many times to make a most careful investigation before the installation. Let us show you where our product has been successfully used for years. Let us suggest a special brand for your particular purpose.

We have an interesting catalogue that will be sent you. It will give you an insight into the proper methods of Fire Brick construction.

Elk Fire Brick Co. of Canada, Ltd.
HIGH GRADE FIRE BRICK and CLAY
Sun Life Bldg., Hamilton, Canada
Representatives for Maritime Provinces:
RHODES, CURRY COMPANY, LTD., Head Office, AMHERST, N. S.
Branches at Halifax, Sydney and New Glasgow, N.S.

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Camp Lighting
By the
Carbic System

This Carbic Light will burn for twelve hours steadily, giving 2,000 candle power without refilling with Carbic Cakes—the handy new system of compressing raw Carbide. For Logging, Bush Work, Camp Lighting and Saw Mill there is no artificial light to equal "Carbic." We have sold

Modern THE Carbic LIGHT **Lighting**

hundreds to Lumber Camps, Military Camps, Corporations, etc., and every one gives perfect satisfaction. Expense of operation is small. Light can be regulated with our patented burner. Safe to operate and handle. Write for interesting catalogue and prices to the lumber trade.

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Canadian Agent
8 Lombard Street, TORONTO

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Payette & Company, P.
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Gendron Shoepack Company, P. T.
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SLEEPING ROBES
Smart Woods Limited

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SODA PULP PLANTS
Becker & Co.

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Stout Lumber Company
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Canada Wire & Iron Goods Co.

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McLennan Lumber Company
Muir & Kirkpatrick
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Inserted Tooth Saws, Bits and Holders are reducing the expenses and increasing the output in hundreds of Canadian mills.

The excellence of Sterling Steel and our improved methods of manufacture make this possible.

Write for our free book "C.L." Full details of our entire line of "Saws for all Purposes."
Let your next order specify ATKINS—We'll do the rest.

E. C. ATKINS & CO.

Factory: HAMILTON, ONT. :-: Branch: 109 Powell St., VANCOUVER

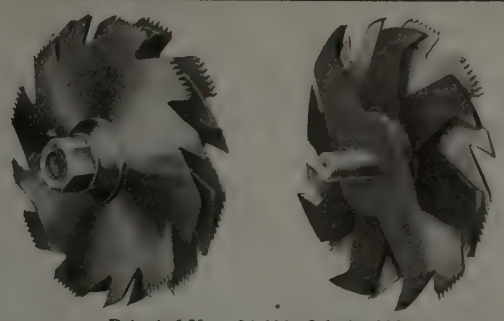
J. J. TURNER & SONS

PETERBOROUGH, ONT.

Government Contractors and the largest Manufacturers and Dealers in Canada of

Lumbermen's Tents, Bed Ticks, Grey Blankets, Nose Bags, Waterproof Goods, Steel Ranges and General Camp Outfits.

Write for Catalogue. **Prompt shipments.**



Patented Nov. 29 '92; July 19 '10.

Grooves Cut with Huther Bros. Dado Heads

Fits Any Saw Mandrel

A Huther Bros. Dado Head consists of two outside cutters and enough inside cutters to make the required cut. This Head will cut perfect grooves, with or across grain, any width. It is an easy Head to keep in perfect condition, has a simple quick adjustment, and may be enlarged any time after purchase. Sent on approval and if not satisfactory return at our expense.

Write for New Illustrated Catalog.

HUTHER BROS. SAW MFG. COMPANY, Inc.

1103 University Ave.
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LOGGING LOCOMOTIVES

Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

MONTREAL LOCOMOTIVE WORKS, LIMITED,

DOMINION EXPRESS BUILDING, MONTREAL, CANADA.

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

The Peter Hay Knife Co., Limited

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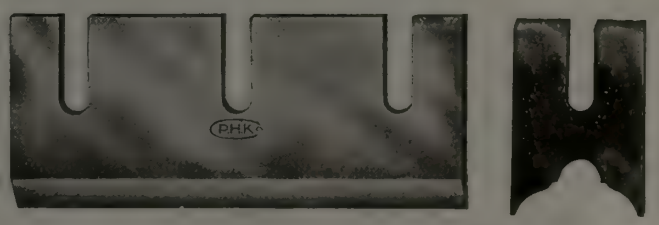


MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

Steel Saw Carriage

The illustration shows our 3-block standard steel saw-mill carriage, the knees of which recede 44" from saw line. This carriage can be furnished in any number of head blocks or axles, also equipped with steam set works attached to either our No. 3 or No. 4 set.

The carriage is carefully designed throughout and is giving excellent service in mills all over Canada.

When you overhaul your mill

don't waste money on extensive repairs to machines whose days are done. You will save money both in your operating costs and in the improved quality of your lumber if you install new "Long" saw mill machinery.

Let us talk to you before you start to overhaul

The E. Long Manufacturing

Company, Limited

Orillia - Ontario

An Edger for 6" Cants

You can put a 6-in. cant through this edger and know that it will come through edged to a hair. Edger carries 22-in. saws, 6-in. saw collars, leaving 7-in. clear saw blade, more than enough margin for 6-in. stock

Mandrel is 3⅞-in. in diameter, the three bearings that support it are each almost 10-in. long—the rest of the machine is built in proportion. That's why Waterous New Champion Edgers can be crowded to the limit and will turn out full capacity, day after day, without straining.

Notice the feed rolls, two before and two behind the saws. They are machine fluted to give a firm, secure grip on the timber that holds it fast, but will not mar it in any way.

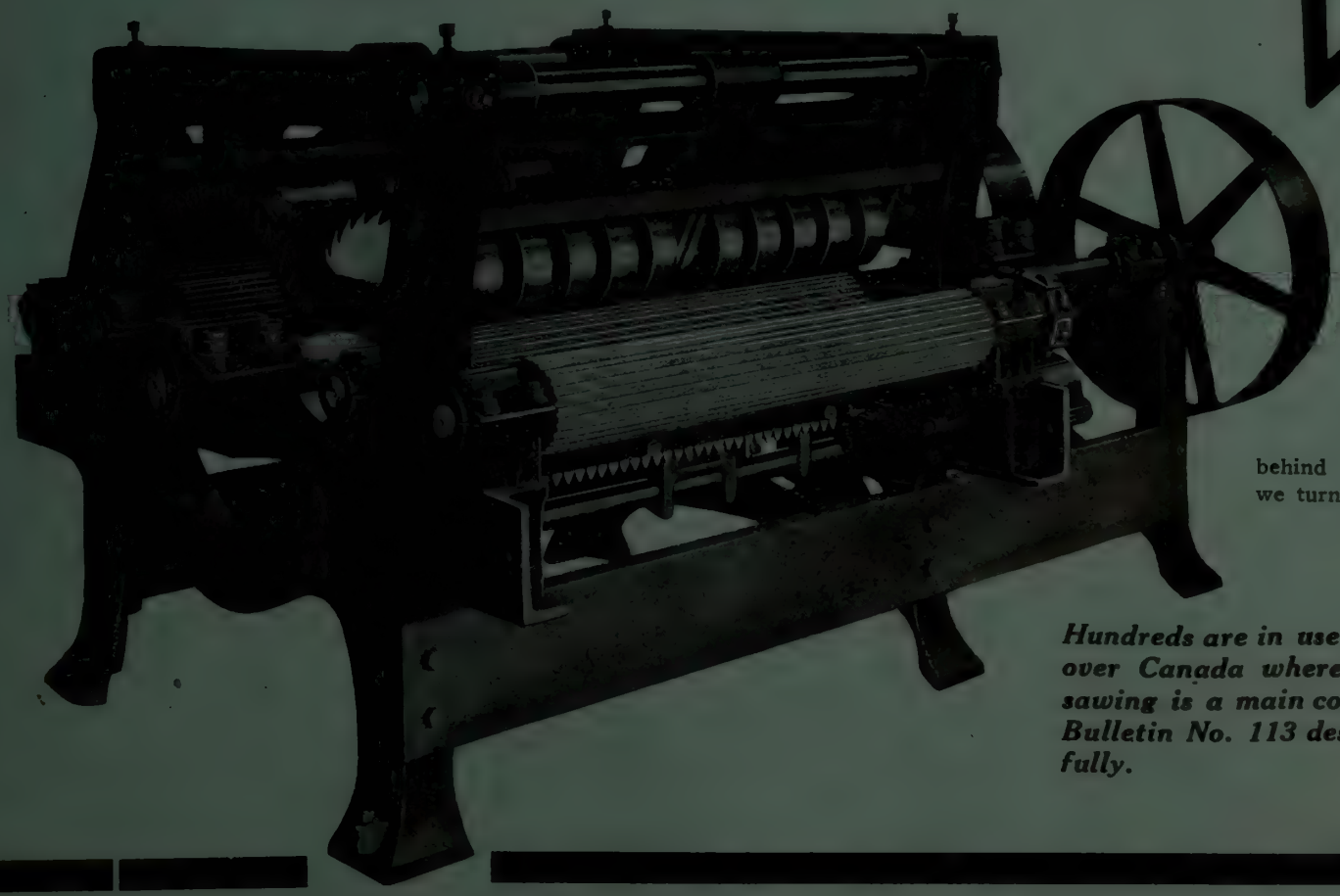
We build up-to-date Machinery for Sawmills of every capacity—circular or band
Catalogues on request

The press rolls are divided, too, making both sides of the machine independent of each other. It's a worth while feature, decidedly.

WATEROUS NEW CHAMPION EDGERS

are built with 40", 48", 56", 60" and 72" opening. They carry as many as four movable and two stationary saws without difficulty.

These edgers cut true and to dimension at all times. The guides are rigid and cannot shift in the cut. They are crowded to correct position and held immovably in place by a steel setting gauge that drops upon them. *No other edger has this feature.*



Waterous New Champion Edgers are fast and accurate cutting, easily operated, and perfectly safe. We stand behind every machine we turn out.

Hundreds are in use in mills all over Canada where quality of sawing is a main consideration. Bulletin No. 113 describes them fully.

The Waterous Engine Works Co., Ltd., Brantford, Canada

$5,000,000.00
worth of mixed metal sold annually.

"FROST KING" METAL

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our TROJAN BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

Tell Us

YOUR NEEDS, for we cannot anticipate them.

Whether you LUMBER extensively or only on a moderate scale, you can place orders with us advantageously.

Try Us

At least give us an opportunity of showing how we can serve you. Prompt attention to all communications, whether enquires or orders. Such is only proper.

We assure you that your interest in our products will

Please Us

Our Motto:—"Only Good Goods."

Our Business:—Founders, Machinists, etc.

Specializing in Lumbering, Contracting and Farming Equipment.

The Smith Foundry Co., Ltd.

FREDERICTON, New Brunswick

Montreal Toronto Winnipeg

The J. C. McLaren Belting Co.
Limited

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Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

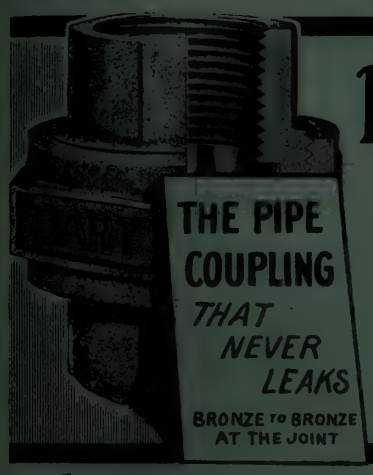
The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

It's a Pink anyway you take it, and it's the best Peavey made

Canada Lumberman & Wood Worker



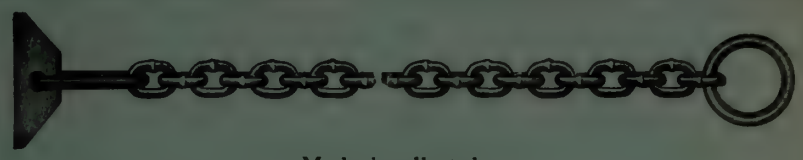
Permanently Tight

No Upkeep Cost

No Replacement Cost

No Loss From Leaks

Your Jobber Sells Them



Made in all styles

Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada — Write to — Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

NON-SLIPPING

MAXIMUM TRANSMISSION OF POWER WITH HIGHEST DEGREE OF EFFICIENCY

FULL STOCKS

THE BELT WITH A GRIP

Lincona

BALATA BELTING

WATERPROOF

THE IDEAL BELT FOR LUMBER MILLS AND ALL OUTSIDE DRIVES

PROMPT SHIPMENT

THE CANADIAN B.K. MORTON CO., LIMITED

MONTREAL 49 COMMON STREET — TORONTO 86 RICHMOND ST. E

1/6

GENUINE "TURBROS"

Balata Belting

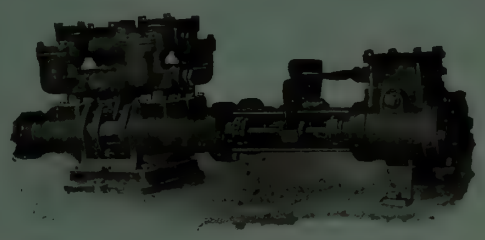
Waterproof and Stretchless.

The best belt for sawmills.

Manufactured and guaranteed by

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)



REDUCE repair bills. **INCREASE** efficiency.

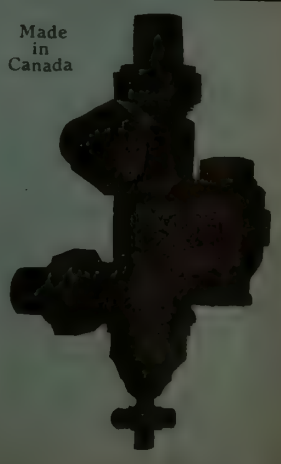
by the installation of Pumps built by

The Smart-Turner Machine Co., Limited

HAMILTON - CANADA

J. M. T. Automatic Injector

Made in Canada



Made according to the most approved ideas with connections to suit any requirement. Injectors start from 2 to 3 lbs. of steam pressure when water is taken from a barrel or tank, at level of the Injector. With water pressure of 20 lbs. they start at from 10 to 12 lbs. of steam and work up to 175 lbs. Used for low pressure in steam heating plants.

We also make our J.M.T. Improved Injector for Working Pressures up to 220 lbs. Steam.

Send us your Injector enquiries.

The James Morrison Brass Mfg. Co., Limited

93-97 Adelaide Street West, TORONTO

Alphabetical Index to Advertisers, Page 58 Classified Directory to Advertisements, Page 60

PULLEYS

No Keys

No Set Screws

In Perfect Balance

Lighter

Stronger

Better Belt Surface

The Dodge Standard Wood Split Pulley

The Wood Split Pulley is better than either cast iron split pulleys or steel split pulleys for the following reasons—

The wood pulley is lighter, stronger, better balanced, and provides a very much better belt surface. It costs 33 1-3% less money and provides 50% more returns in horse-power value. It may be run at very much higher speeds with no danger of bursting—also it may be had quicker and in a greater range of sizes.

It costs less to get—less to put on—and less to keep.

We make approximately 300 Dodge pulleys every day—everybody uses them.

There are more Dodge pulleys making ammunition than any other kind—you can get them quick.

Every pulley is thoroughly nailed. Every pulley is guaranteed for Double Belts.

We are Canada's greatest pulley makers.

If you have not our Books, write us

DODGE MANUFACTURING COMPANY

Toronto - - Montreal

We have on hand

the undermentioned lines of DRY STOCK:

Merchantable Spruce

2 x 4 x 10/16	-	50,000 feet
2 x 5 x 10/16	-	60,000 "
2 x 7 x 10/16	-	100,000 "
3 x 7 and up	-	33,000 "

5th Quality Spruce

3 x 5 and up	-	200,000 "

Merchantable Hemlock

1 x 9	-	40,000 feet
1 x 10	-	100,000 "
2 x 10	-	75,000 "
2 x 12	-	37,000 "

Mill Cull Hemlock

1 x 8	-	30,000 "
1 x 9	-	30,000 "
1 x 10	-	25,000 "
2 x 10	-	16,000 "
2 x 12	-	17,000 "

Bartram & Ball Limited

WHOLESALE LUMBER

Ottawa - - Canada

Murray & Gregory, Limited

Head Office:
ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

SAW MILLS

St. John, N.B., St. Camille and Lake Frontier, Que., cutting SPRUCE and PINE Lumber for British, United States and Canadian Markets.

Also

LATH, SHINGLES, PULPWOOD and RAILWAY TIES

Manufacturing and Grading Right

Trade *Mark*

Address all enquiries to our Head Office, ST. JOHN, N. B.

George Gordon & Co.

Limited

Cache Bay - Ont.

Manufacturers of

RED and WHITE PINE

PLANING MILL **DRY KILN**

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

We Want to Move Quick

50,000 ft.—2x4 and up No. 1 and 2 Red Pine Mill Culls
350,000 ft.—1x4 and up No. 2 Longford Hemlock
150,000 ft.—2x6 and up No. 2 " "
200,000 ft.—2x4 No. 2 " "
15,000 ft.—1x5 No. 1 and up " Hemlock Sidings
30,000 ft.—1x6 10/16 No. 1 " "
8,000 ft.—1x7 10/16 No. 1 " "
30,000 ft.—1x8 10/16 No. 1 " "
5 cars 3X British Columbia Red Cedar Shingles.

Get our prices on the above stock.
They will interest you.

The Long Lumber Company
Hamilton, Canada

Nashwaak Pulp and Paper Company
ST. JOHN, N. B.

Manufacturers of

Bleached Sulphite and Lumber

(Successors to Edward Partington Pulp and Paper Co., Limited)

BATHURST

LUMBER

Dry Spruce and Pine, Rough or Dressed

LATH

Spruce—Fifty Pieces per Bundle

FOR RAIL SHIPMENT

SHINGLES

"BEAVER BRAND" Cedar—Full Count

Monthly Stock and Price List on Request.

Bathurst Lumber Co., Limited, BATHURST, N. B.

Ten Band Mills to Serve You

Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

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ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

Watson & Todd Limited
OTTAWA

RED PINE WHITE PINE
SPRUCE

SEND US YOUR ENQUIRIES

The
Harris Tie & Timber Co.
Ottawa - Canada
Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

Vancouver Lumber Co.

Manufacturers LIMITED
B. C. FIR and CEDAR LUMBER

View of our cedar mill, Roche Point, B. C.

Two Large Modern Mills at Your Service.

Send enquiries to our Eastern Sales Office—
701 Excelsior Life Building,
TORONTO, ONT.
Representative, CHAS. PLANT

River Ouelle Pulp & Lumber Co.

Manufacturers of
SPRUCE
Lumber Lath Pulpwood

Head Office and Mills at:
St. Pacome, Que., Canada
On I. C. Ry. 75 Miles East of Quebec City

Also Mills at:
Crown Lake, Powerville Riv. Manie
On Nat. Transcontinental Ry.

Fraser Bryson Lumber Co., Ltd.

Office, Castle Building 53 Queen St. Ottawa, Can.

Wholesale Lumber Dealers and Selling Agents for

Fraser & Co.

Mills at

DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1", 2" and 3" to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson

Chapleau, Ontario

Long Leaf Yellow Pine, Louisiana Red Cypress

Annual Capacity 350,000,000 Feet Yellow Pine
50,000,000 Feet Red Cypress

Nature's best in forest products

LET US QUOTE YOU PRICES

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

CHICAGO LUMBER & COAL COMPANY

Manufacturers

General Offices: EAST ST. LOUIS, ILLS.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

BASS WOOD

We offer for immediate shipment—
1" and 1½" Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—
1 x 8½" 1 x 9" and wider
1 x 6 and 7" 1½" to 4"

SPRUCE BASSWOOD
ASH HEMLOCK and PINE

HART & McDONAGH

513 Continental Life Bldg.
Phone Main 2262

TORONTO

FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

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1 Automatic Filing Machine for 12-in. D.C. band saws.
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1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
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1 Edger for ripping dry lumber, installed.
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There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

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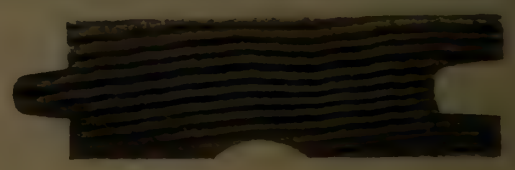

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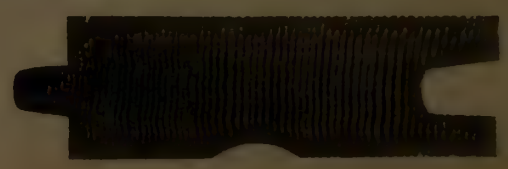

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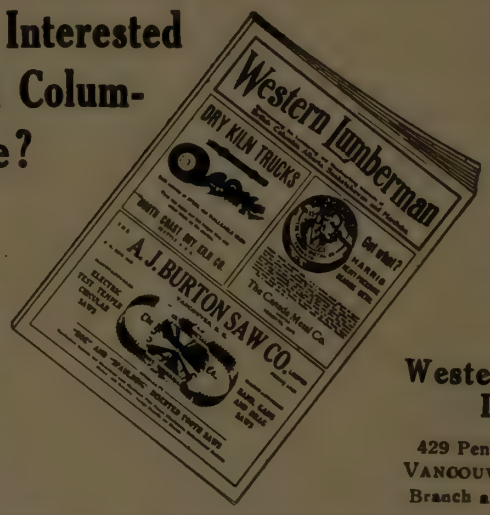
The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



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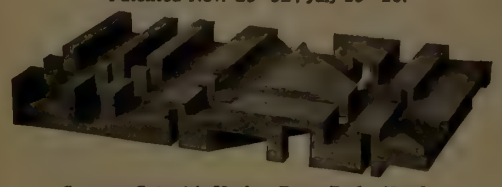

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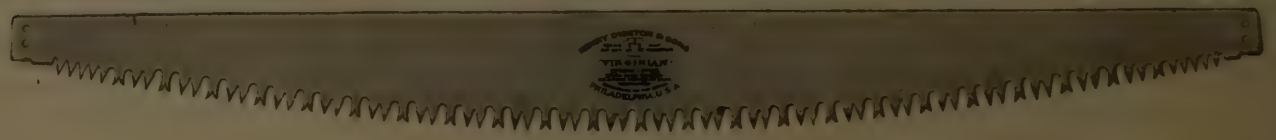

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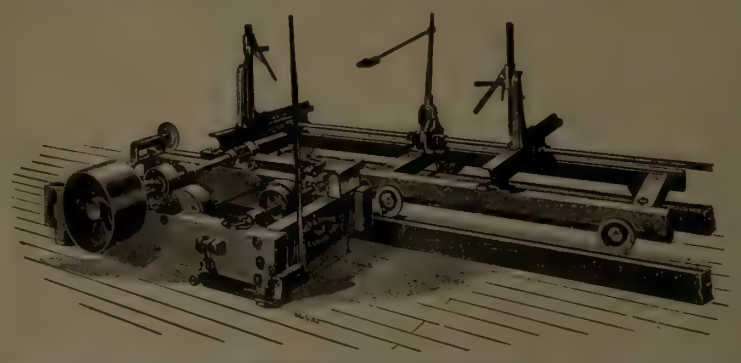

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Retail Association Movement Making Progress

The efforts that the Canada Lumberman has been making recently to bring about the formation of associations of retail lumbermen, particularly in Ontario, but elsewhere throughout Canada in general, are commencing to show encouraging signs of having good results. Readers will have noticed in our issue of April 1 a considerable number of letters from Ontario retailers who want to see an association formed representing the retailers of the province. We expect that definite results will be obtained along this line in the near future.

There is one very successful and live association of retail lumbermen in Ontario which has been in existence for some time, namely, the Southwestern Ontario Retail Lumber Dealers' Association. Elsewhere in this issue we publish a report of the annual meeting of this association, which was held recently at Chatham, Ont. The Southwestern Ontario Association includes practically all the important retailers in its district. Its annual meetings are not big events, but simply meetings for the purpose of putting through the routine business of the association. The real work is done throughout the year, and is of benefit to every retail lumber dealer in the district. The association is able to elevate the standard of trade among its members and to deal with infractions of trade ethics in an effective manner. By the interchange of ideas they are able to develop much more effective business methods than was possible when each firm plowed its own furrow. Since forming their organization they have found that the possibilities for improving their mutual interests are practically unlimited.

This association has had sufficient experience to realize that the growth of the association movement is certain to be of benefit to all who become interested in it. As an evidence of this belief they unanimously passed a motion at their annual meeting directing the secretary to write to the editor of the Canada Lumberman, giving him a report of the meeting and stating that it is the wish of the Southwestern Ontario Retail Lumber Dealers' Association to co-operate in the formation of a joint association with other similar organizations in Canada. They also add a recommendation that a great deal of benefit would result to all concerned if the retail lumber dealers of Canada would hold a convention once or twice a year. This is the spirit that will bring results in the way of trade improvement through the association movement among retailers, and we hope to see the Southwestern Association, at a comparatively early date, realizing its ambitions in the way of being able to co-operate with other associations, and hold annual joint conventions.

While we have been suggesting in previous issues simply the formation of an association of Ontario retailers, this has been more or less of a general suggestion to bring the matter up for discussion. Our belief is that the situation in Ontario—being so extensive a province—would be best handled by the formation of one or two—possibly more—local organizations whose officers and members could hold meetings conveniently, and representatives from which could attend an annual convention at some central point. The annual convention could take up all the matters that are of mutual interest to the local associations, handling such questions as the publication of plan books, the standardizing of costs, etc. The local association would have many matters of local importance to deal with, which would scarcely be suitable for the attention of a general association representing the whole province.

Suggests Branding Canadian Exports of Timber

That there is a strong inclination among the timber merchants and users of Australia to prefer Canadian products to those from the United States, even when conditions are equal in regard to price and quality, is an interesting fact that is brought out in a letter from an Australian lumber dealer, to the Canadian Trade Commissioner at Melbourne, Australia. The point is so strongly urged by the writer and seems to be so well worth considering that we publish the letter elsewhere, and hope that our British Columbia readers will give it their attention. Perhaps we do not need to be told that British subjects anywhere in the world fell a natural preference for British goods, yet the growth of the market for United States fir in Australia, at the expense of the Canadian trade, has indicated that this particular case may be an exception. To show that there is need for something very radical in the way of amending our methods of seeking Australian trade, it is only necessary to state that during the year 1913 the imports of "Oregon" or "Douglas fir" into the Commonwealth, from Canada, amounted only to 3,890,000 superficial feet, while those from the United States amounted to 123,145,000 superficial feet. Apparently the Canadian share of the trade was practically nil.

The writer of the letter referred to bases his remarks entirely upon the natural British desire to develop British trade by using British goods, and he makes the pertinent suggestion that Canadian timber should be branded on both ends with the word "Canada," so that those who desire to use our products may know that they are doing so. Simple as the suggestion may seem, it is of importance. The writer urges that it would be a moderately simple matter to secure the major portion of the trade if Canadians would brand their stocks in this way, and also brand them with individual mill marks. Whether this is really the case or not, we believe that the British Columbia manufacturers ought to give this idea a good deal of thought. Possibly they have in it the means of making that first step towards capturing the Australian trade, for which they have been so diligently searching of late years. According to the writer of the letter it would not be long before Australian architects and consumers would develop a strong preference for the Canadian product, amounting practically to a determination to use it and none other. He seems to be of the further opinion that even today this preference exists, but is thwarted because of the inability of the architect and consumer to know the source of the stock which he is using.

That the time for taking such a step is the present, is also strongly

urged. In fact, present conditions are particularly favorable, he believes, as trade is dull and stocks are being gradually worked down so that the risk is practically nil, whereas by having made a start under present conditions trade will be ready to extend and take advantage of improvement as soon as the market becomes more active, and it will then be possible for Canadian stocks to make a strong and a permanent impression upon their own merits.

The advantage to be obtained from such a course might be quite substantial. Anything which will encourage the placing of British Columbia stocks upon the Australian market in such form that the consumer will know that they are coming from Canada, is to be encouraged, especially when it can be done effectively without any practical increased cost. The development of a preference for Canadian stocks in so extensive a market would make the task of those who are seeking to build up this trade and to develop it through Canadian transportation routes all the easier. Lumber merchants in other countries have adopted this plan with benefit. All the Baltic mills brand their entire output and have been able to increase their trade by this means. United States mills in many cases are doing the same thing with good results. Canadians should be able to follow this plan also with profit, especially as the market conditions and the national preference of the Australian consumers for British goods provide a combination of circumstances which apparently call for just such a course.

The Webb Bill Likely to Become Law

Lumber organizations and firms in the United States are taking a keen interest in the campaign for the passage of the Webb bill by Congress. The purpose of the bill is to make it legal for exporters to organize associations for regulating and promoting export trade. Lumber exporters in the United States in the past have been forbidden, they believed, to co-operate by forming joint selling agencies. The chief purpose of the law forbidding joint selling agencies is to protect the consumer at home from extortionate prices. When it comes to export trade, where the merchant has to compete with producers from other parts of the world, a law of this sort is of no value to the country exporting, but is a decided drag upon the export trade, as it encourages price competition among the exporters, who therefore get little or no profit out of their foreign shipments other than the very doubtful advantage of having a market for surplus stocks in times of over-production. The only parties to gain are the foreign consumers, or, as frequently happens, the foreign merchants, who benefit from the competition among exporters; but, being organized for their own protection, manage to get a good price from consumers, based upon a normal c.i.f. price, including a cost not regulated by competition.

Looking more closely into the merits of the problem, there seems to be good reason why the foreign merchants should be pleased with the passage of the Webb bill by the United States. There are, broadly speaking, two classes of lumber importing countries—those which depend upon imports for their chief supply and those which consume home products chiefly, importing only to supplement what their own mills make. Canada comes within the latter class, and undoubtedly the lumber market here would benefit if its imports from the United States were regulated by a selling agency which would reduce the dumping evil. We do not know whether the working of the act would result in such a development in the case of the Canadian market, but we frankly believe that such a result would be a good thing for all concerned. The benefit to us in Canada would be a stabilizing of trade based upon a knowledge that the stocks coming to us from the States were being marketed at a fair value, and, as a necessary consequence, that the danger of getting poor stocks when we thought we were getting bargains would be lessened. We would, in short, be better able to buy United States stocks upon their intrinsic merits, and trade would be pleasanter for all concerned.

In countries which depend largely upon imported stocks of lumber the situation would not be exactly similar, but the results would be benficial. Take the case of Australia, for instance. Mr. H. R. MacMillan, in his extensive report upon this market, makes it clear that the prices of Pacific Coast woods for export could be raised several dollars per thousand without difficulty. In fact, he points out that the prices for which these stocks are sold to the consumer in Australia are already high enough to allow for such an advance in the f.o.b. price. Why, then, should not the producers in the United States and those in Canada, at the same time, take the natural steps to obtain better prices by organization, instead of everlastingly playing into the hands of the shipping companies and the foreign merchants and cutting one another's throats at home by quoting ruinous f.o.b. prices?

The Webb bill came up before Congress some months ago, but the government hesitated to pass it, preferring to take more time for deliberation. The measure is primarily conceived as a means of enabling the United States exporters to co-operate in securing trade when the rebuilding of Europe becomes an actual undertaking. Other lumber-producing countries are adopting similar means. Russia, Sweden, and Finland are already well prepared in this way, and unless the United States exporters are able legally to operate in concert their share in this trade will be restricted.

We gather from the course of events that the Webb bill will be successfully put into effect by the present Congress. Active work in its favor is being started by many influential lumber organizations. The Federal Trade Commission has recommended it strongly. President Wilson has insisted upon the necessity for it being enacted into law as an indispensable adjunct to United States foreign commerce when the war in Europe has ended. The Fir Club of Portland, Ore., has sent resolutions to Congress urging the passage of the bill, in the following language: "Under the existing laws of the United States, American manufacturers are forbidden to do the very thing which European governments encourage and practically require of their manufacturers—that is, to co-operate in joint selling agencies for foreign trade. For the permanent prosperity of the United States it appears unquestioned that every possible barrier to the extension of our foreign commerce should be removed."

Under efficient federal supervision to prevent abuse of the privilege of thus organizing to get business, we do not see why our friends to the south should not be permitted to do so. For ourselves, while some may look askance at the proposal, and imagine that it will enable the United States exporters to compete with us more effectively for foreign trade, we are inclined to feel that it will have a good effect by providing a better basis for the export business and by making the United States exporters, although more successful competitors, at the same time worthier ones.

What Can Lumber Associations Accomplish?

Many a time, in the course of our visits to lumber offices we are obliged to listen patiently to the man who thinks his business is a peculiar exception to the rule that co-operation leads to greater results. The association idea has had an up-hill fight in Canada, as in the United States. In the latter country it is beginning to give one the impression of having reached the top of its first great hill, whence it can at last see far away the great horizon of increased usefulness and profit for which it has been striving. In Canada, unfortunately, we are still struggling slowly up the first hill.

The Canada Lumberman believes that there are no exceptions to the association idea. The white pine men—some of them, at least—will say that their market is so definite that they do not need to co-

operate. Experience, however, has shown that markets alone are not the only things to be improved by co-operation. Greater business ability undoubtedly comes to every individual who co-operates with his fellows. Even new markets for white pine, bigger markets, markets enabling the product to be more economically disposed of, may be developed. The man or the firm who thinks he can get nothing out of association with his fellows is in a rut. He needs the services of an association far more than others.

An association of lumbermen, however, must be something that is alive. Fraternity alone is pleasant enough, but gets one nowhere unless it goes hand in hand with useful service. A lumber association with an active membership and officers can be of great value to the industry and the trade. A fine example of this is the case of the National Lumber Manufacturers' Association, which recently held its annual meeting at Chicago. The addresses of the officers mentioned many ways in which the association had been securing good results for its members. From these reports we make a few extracts to bear out our point.

The President, R. H. Downman: The past year has developed more than ever before the need for co-operation in every part of the lumber industry, from the forest to the consumer. The demands of modern conditions have forced organization, and in none of the great industries of the world is it more necessary than in the lumber industry. In some industries, where there are few producing units, organization may be accomplished through the formation of great corporations, which occupy dominant positions with respect to control of raw materials, production and markets. In other industries, such as agriculture, coal mining and lumber manufacturing, where there are countless producing units, and no large dominating factors, united, effective action for any purpose is possible only through trade organization.

We are entering upon a stage of development in which team work will tell as never before. Organization is here to stay, whether the individual believes in it or not. The wise man improves his own condition through efforts to improve the condition of his neighbors. The business man, it would seem, has sometimes preferred bankruptcy to meeting with his felows and learning their way of doing business in return for the giving of information upon his own methods.

Secretary R. S. Kellogg: Rapid increase in the work of trademarking lumber, as a guarantee of quality by the different regional lumber associations, is an indication of a new realization of the need for modern merchandising methods in the lumber industry. Hand in hand with trademarking lumber comes the necessity for practical advertising of lumber, and the results attained in the past year have meant much to the industry.

One or two associations have made especial progress through the employment of cost experts. Until the manufacturers know more clearly, more promptly and more constantly what production is costing they will not have the fundamental basis for the adoption of right merchandising methods.

Selling agencies worked out with due regard to conditions of production and distribution for different species, based upon sound cost-keeping methods, and with full publicity for their operations, will go far toward the creation of those conditions of stability which make possible a fuller utilization of timber and afford a service to the consumer that is prompt and reliable. Co-operative marketing organizations in the agricultural field now sell one billion dollars worth of products yearly, and the public is benefited by the standards thus established.

The registering and advertising of a trade mark puts personal responsibility behind the product.

It may be said that the outstanding features of progress in the lumber industry during the past year have been the general awakening to personal responsibility in the lumber business, and the acceptance of the idea—long acknowledged in other lines—that the products of the industry must henceforth be merchandised upon the basis of service and satisfaction to the user.

E. A. Sterling, Manager Trade Extension Department: Wood, when properly selected and wisely used, is one of the most economical and satisfactory materials; when incorporated into dwellings, or used for a myriad of other purposes without proper selection or care, it may fail and give dissatisfaction. One of the first tasks of the past year was to create practical lumber literature, and this has been accomplished through a series of farm and engineering bulletins, technical letters, better building booklets, and educational publications. A total of about 600,000 copies have been printed. Demands for the various publications have in all cases exceeded ability to furnish them, and this has followed without attempting to develop many additional known avenues of distribution.

Editorial Short Lengths for Busy Readers

Mr. Ellwood Wilson, chief forester of the Laurentide Company, Ltd., was one of the speakers at a meeting of the Canadian Division of the Aerial League of the British Empire, held in Montreal on March 27. In discussing the possibilities of the use of the aeroplane in forestry protection work, Mr. Wilson spoke of the advances in this direction. The time was rapidly coming, he said, when aeroplanes would be used for this work and would give real protection. The use of the aeroplane would mean that four men would be able to do the work of sixty men, more rapidly and more efficiently. The two questions involved were those of cost and personnel. He hoped that the former would soon be solved, and as for the latter, the return of the trained aviators from the front would no doubt solve that problem. The subject of the use of aeroplanes in forest protection had been under consideration for some time, and he hoped that next spring the first forest aeroplane would be at work in the St. Maurice Valley.

Statistics compiled by the officials of the United States consulate in Vancouver show that the total value of the wood products entered as passing through this port southward during 1916 was $7,666,461, which is a slight decrease as compared with 1915, when the total was $7,698,707. The figures for last year include freight to destination points, amounting to $2,072,482.

The value of logs exported was $579,218, as compared with $895,218 in 1915. Lumber, which included ceiling, flooring, hardwoods (re export), cottonwood (rough and dressed), siding, silo block and ties, amounted to $1,127,888, as against $1,711,498 in 1915. Paper showed an increase, the shipments for 1916 totalling $1,209,466, as against $1,022,627 in the year previous. In shingles there was an increase, despite the railway embargo declared in November. In 1915 the total value of United States shipments declared at Vancouver was $3,790,763, while last year the value was $4,050,078. Piling in 1916 was $19,147, as against $31,623 for the year previous; poles last year were valued at $118,745, as compared with $47,417 in 1915. Pulp exhibited a big increase, the value for 1916 being $554,397, as compared with $47,417 in 1915. Shingle bolts fell from $15,912 in 1915 to $7,522 in 1916.

Robert H. Downman, president of the National Lumber Manufacturers' Association, returned to his home in New Orleans from Washington, where he conferred with officials of the government. While there Mr. Downman offered his personal services to the Natoinal Shipping Board for the inspection or buying of timber for government purposes, either in construction of ships or other needed material. He assured the National Shipping Board that the lumber industry would do its full share in the crisis growing out of the European war.

The forecast of the lumber industry for the immediate future, in view of the war prospects, is well reflected by the Babson forecast, which declares that in the event of peace, lumber will be in great demand. In case of war, it will also be in demand, with the after-the-war necessities increased rather than decreased. He says: "Lumber is still a good purchase for some months ahead. Some grades of lumber have strengthened, but even further advances should come." This coincides with the estimates of those in the industry.

N. B. Shingle Producing Difficulties

Manufacturer Finds Increasing Trouble Disposing of Low Grades While Contractors Continually Seek to Depress Prices

The manufacturing and marketing situation in connection with New Brunswick shingles has been a complicated one for some years past, and to-day is a very difficult situation to analyze. The Canada Lumberman recently sought the views of a number of manufacturers in regard to this subject with a view to assisting as much as possible in a solution of those difficulties which present themselves and publishing the opinions of manufacturers and others in regard to shingle trade conditions. From an experienced manufacturer of cedar shingles we have received an interesting outline of conditions as they appear to him.

The production of cedar shingles of late years in New Brunswick, he says, has not been accompanied by profit. In fact, no manufacturer of cedar shingles in this province has recently been making money. This may be considered rather strange in view of the present high prices, which appear to be abnormal, but which in reality are not high enough, on account of increased operating costs and on account of peculiar difficulties which surround the shingle manufacturing business. There are two ways in which one may go in for the production of shingles. He may manufacture nothing but shingles or he may be engaged in the production of spruce lumber and of shingles at the same time. The latter method has the advantage of enabling the manufacturer to produce at a lower overhead expense. The prices of late, high as they have appeared to be, have yet been too low for the man who is engaged exclusively in the manufacture of shingles. Even the man producing both spruce lumber and shingles has been finding it difficult to come out even on his shingle account.

Low Grades Hard to Sell

Market conditions have been growing more and more difficult. The New England market in the United States has reached a point where they do not want to buy anything but extras and clears. A small quantity of third quality shingles is taken, but no manufacturer can get a price for them that will repay him his producing expense. It is as difficult as finding a needle in a haystack to sell any extra No. 1's or No. 1 clear whites. Of course, a few of them have been sold during the last few years, but there has been a great difference come over this market lately in regard to the demand for the low-grade shingles. Where we could sell car lots a few years ago, to-day we can only dispose of these lines by thousands. In 1915, out of a production of 15,000,000 shingles at a certain plant in New Brunswick, less than 70 per cent. was disposed of in the United States, because there was no market there for the low grades. In 1905 the same mill producing fifty millions was able to sell 95 per cent. of its output in the United States. This will give a good idea of the way in which the market for low grades has been narrowed. So serious, in fact, has this situation become that some manufacturers are not making low-grade shingles any more. As soon as the saw strikes into low grades they throw the shingle bolt into the furnace. This may not be good manufacturing, but what can the mill owner do? He cannot sell the low grades abroad, and the local trade is so limited that if all the mills were to go after it the supply would soon put the demand out of business.

Another feature in connection with the market situation is that so many mills to-day are turning out shingles in a slipshod way, not keeping them up to standard as they did some years ago. This is largely the result of persistent effort on the part of contractors to drive down the price of a good article. The manufacturer, under these conditions, found himself unable to make both ends meet, and had to produce a poorer grade of shingle in order to keep his trade with the contractors. Ten cents per thousand shingles looks like a lot of money to most men, and many are willing to purchase at the lower price rather than give another dealer, say, 25c more, although they would be getting an article worth 40c per thousand more.

Hard to Get a Reasonable Price

The old standard shingle is apparently a thing of the past. In order to make anything out of the business to-day the manufacturer must give the buyer what he really is looking for, namely, cheap goods. This is mighty hard on the fellow who owns the roof, but you cannot sell to advantage in any other way to-day. If you tell a man who has a roof to shingle that it will cost him $10 more to put on a really good, first-class shingle roof than some other contractor quoted him, you will see that the cheap goods nearly always have the call. In 1915 one of the best houses in Massachusetts was in need of a shingle roof, and we sold some of the shingles for it. All we ever got over some of our competitors was 10c, although we knew by straight observation that our goods were actually worth 40c per thousand more. The men in our mill were limited to turning out 13,000 shingles of all grades in ten hours, while our competitors were sawing 17,000 with men whom we would not employ. Nevertheless they sold everything they made, and their prices were only 10c per thousand below ours. They did not make any money, as they were running up a big saw bill at the expense of their stock, but neither could we make any money, as our stock was too good for the price that could be obtained.

There is an important situation approaching in connection with white cedar, and approaching rapidly; that is the problem of obtaining raw material for any mill in New Brunswick. The forests of New Brunswick and Maine are disappearing rapidly. Fires, blow-downs, and steady cutting have almost finished the cedar log, and it is a wood that will not reproduce like spruce. It is only a matter of a few years before cedar shingles made in the East will be a rare commodity.

Southwestern Retailers Hold Annual Meeting

The annual meeting of the Southwestern Ontario Retail Lumber Dealers' Association was held recently at Chatham, Ont. The meeting was confined chiefly to the transaction of routine business, including the election of officers. All the old officers were re-elected, as follows: President, Charles Hubbell, Thamesville; vice-president, W. J. Taylor, Ridgetown; secretarry-treasurer, B. F. Clarke, Glencoe; executive committee: W. H. Longfield, Mt. Brydges; F. H. Laird, Dresden; Neil Watson, Ridgetown; P. Piggott, Chatham; G. D. McPherson, Merlin, and D. J. McEachern, Alvinston.

A motion was introduced by J. Scofield, Windsor Lumber Company, Windsor, Ont., and seconded by A. Ludlam, Leamington, Ont., that the secretary should write to the editor of the Canada Lumberman reporting the meeting and indicating that it is the wish of the association to co-operate in the formation of a joint association with other similar organizations in Canada. The discussion upon this motion showed the opinion to be unanimous that the holding of conventions once or twice a year by retailers from different parts of Canada would be a great benefit to all the trade.

The members present devoted the balance of their time to a discussion of the conditions in the lumber market, with the result that all who took part obtained much useful information regarding the general trade situation.

Douglas Fir on British Railways

As evidence of the remarkable strength of Douglas fir, an official of one of the great British railways, in a letter to an official of the British Columbia Forestry Department, stated that out of 616 railway ties of Douglas fir laid down more than sixteen years ago on a main line over which traffic of fifteen million tons per annum passed, only 23 had been renewed, the remainder being still in good condition.

Retail Advertising an Investment

"Delivering service to your customers is buying insurance for future business. It is an investment that never fails to return huge dividends."

This was the way that H. R. Isherwood, of Chicago, of the retail service department of the National Lumber Manufacturers' Association, described the latest move of the retail lumber dealers of America to improve their merchandising facilities, and he continued with this powerful advocacy of newspaper advertising:

"Advertise your yard, your material, yourself, and your service. Good advertising space is the best buy in the American market to-day. Your local newspaper offers its space for advertising for sale, the same as you offer your merchandise. Your local newspaper should be one of your best friends, and assist you in developing your business. We will gladly furnish you suggestions for advertising.

"If you are well posted in your business you know that you can sell cheaper than the mail order house, the ready-cut house, and make a good profit. Figure out the bill of lumber and advertise that you can do it.

"To render proper service to your community, as your business deserves, is an investment, not an expense, that will increase your sales, your efficiency, your standing in your community, and your profits."

Prices of Food Stuffs by Bulletin

C. N. R. Inaugurates News Service to Keep Its Logging Contractors in Touch with Cost of Camp Supplies

The Canadian Northern Railway, through its manager of Eastern lands, Mr. Cyril T. Young, has inaugurated a new and valuable line of service for its logging contractors in the Foleyet District, Northern Ontario. The disorganized state of the market for foodstuffs and the great importance of foodstuffs to the logging camps suggested to them the wisdom of keeping in close touch with market conditions at the large wholesaling centres and sending to their logging contractors periodical bulletins to inform them as to present prices, possible future prices, stocks on the market, and probable crop developments. Any logging contractor or operating lumberman will realize at a glance the value of information of this nature, when it is kept thoroughly up to date and is available at frequent intervals. We hope to be able to publish these bulletins frequently. The first bulletin, of which the Canadian Northern Railway have been good enough to furnish us with a copy is as follows:

Market Bulletin for C.N.R. Logging Contractors, Foleyet District

April 7, 1917.

Horses—Draft horses are due for a rise in prices within a fortnight, due to United States army requirements. With the kind of teamsters offering it is a mistake to buy $500 to $600 teams. Horses will advance $50 or more each by next September.

Hay—Still low; $12.50 f.o.b. cars Sudbury. Hay always rises $2 per ton when farmers have to wagon it in on spring roads. Fifty per cent. of the farming land of Ontario was in hay or pasture last year.

Oats—Reasonable. We purchased at 68c f.o.b. cars Port Arthur. Good Western heavy oats.

Bran—Demand will fall off in May with animals going on pasture.

Potatoes—Corner in potatoes should never have existed. Enormous quantities in West. Am offered potatoes at Hanmer at $1.75 per bag. There were 40 per cent. less potatoes grown in Ontario last year than formerly. Everybody is growing them this year. If you are planting, get Early Eurekas or Irish Cobblers. They stand our frosts better and only rot 5 per cent., while Beauty of Hebron and Early Rose rot as high as 45 per cent. in bad fall weather.

Flour—Will continue to advance. The more you keep stocked ahead the less flour will cost you until end of war. Small lots, wholesale, $10.30 Toronto.

Sugar—Advancing, due to Cuba's crop failure and British Government buying quietly and heavily. Atlantic and St. Lawrence are selling wholesale at $7.85.

Canned Goods—Prices will be firmer even after the new crop arrives, due to the United States entering the war. Canned stuffs and bread furnish the bulk of army rations. Lumbermen are buying few canned goods anywhere now.

Maple Syrup—Sap season is good in Ottawa Valley and Quebec at present. Wholesaling imperial gallon now at $1.25 to $1.50. Will drop 25c.

Butter—Don't stock heavily in butter now. There is a good supply coming, and prices are dropping. Creamery prints are 43 to 44 cents wholesale.

Eggs—Declining steadily. Would be down more now only for bad spring roads in the country for egg peddlers. Eggs will be cheaper than certain meats.

Hogs—Supplies are scanty and the quality offering at stock yards here is away off color. Mess pork is selling at $42 per 200 weight barrel. Rolls, $43. Short cut, $44.

Fish—Herrings reasonable at 9c wholesale. Cannot forecast salmon. Run is later this spring than usual. Any canned stuffs will be higher, due to scarcity of tin.

Carrots—Lower; down 25c per bag to $2.

Turnips—Lower; 75c to 85c per bag. Cheapest food existing to-day.

Onions—Easier. Spanish, crate (120 pounds), $8.50 to $10.

Corn Syrups—Advancing with sugar prices. Will continue to advance. Stock ahead.

Tea—Stock ahead now. Tea may easily advance 20c per pound, due to shortage of ships from Ceylon and Japan. Use more coffee if possible; it will have little advance, especially as compared with tea.

Beans—Scarce. South America beans landing in Montreal at $5.70 per bushel, against $8.40 for No. 3 Canadian. Ones and twos off the market entirely. Quebec farmers are planting beans heavily this year. November should see beans somewhere around $6, probably less.

Dried Fruits—Firm. Prunes selling 12c to 13½c wholesale in Montreal. Figs at 12c wholesale are reasonable under the circumstances. Rice is firm and going to remain there, as the British Government have requisitioned so much tonnage on the Pacific.

Summary—If you want the food costs of your logging to be reasonable next September, October, November, etc., grow all the garden vegetables you possibly can, to get away from feeding so much meats, flour, beans, and canned stuffs. You need not go too strong on potatoes—grow turnips, beets, carrots, cabbages, tomatoes (for pickles), parsnips, citrons (for preserves), and pumpkins (for pies). Get in a bunch of young pigs shortly for fall killing. Use fish when possible instead of beef. Big lake trout from licenses further west on our line (where they put up ice this winter) will reach you by express next day. Be sure to grow a good garden; not only will it cut expenses, but it is your duty this war year.—Cyril T. Young, manager Eastern lands.

U.S. Railroads Asking Higher Rates

Seeking Increase of 10 to 15 Per Cent. to Meet New Expenses Under the Adamson Law

Efforts by all of the railroads of the United States to obtain a general increase in freight rates, probably of 10 or 15 per cent., are forecast by a preliminary petition of the principal Eastern roads to the Interstate Commerce Commission. Western roads have also notified the commission they will fill a similar application soon, and Southern roads are expected to follow. It is reported unofficially that Eastern carriers will ask a 15 per cent. flat increase and other roads about 10 per cent.

The new rates would apply to all classes of freight excepting coal, coke, and ore. The roads want the commission to take quick action, on the ground that an emergency exists by reason of the rapid rise of expenses and the consequently sudden reduction of net operating income. Technically the application of the Eastern roads is only for modification of rules under which the commission might suspend the higher rates from four to six months or even longer, pending investigation. The commission will first act on this petition and promptly after that, it is said, formal application for the increase will be made; then the commission is expected to conduct a series of hearings, at which the roads, shippers, and other interests can be heard.

The railroads have wasted no time in making a new appeal to the Interstate Commerce Commission for an increase in freight rates, which means that the increased burden imposed on the railroads through a settlement with the railway brotherhoods of their differences, the settlement given permanency by the decision of the United States Supreme Court, will be passed on to shippers and consumers through increased freight rates. Now that the Supreme Court has upheld the Adamson law, there is no possibility that the carriers will not live up to their latest settlement with the brotherhood employees, and the only recourse is solicitation of new revenues, through an appeal to the commission.

On account of continued severity of unparalleled car shortage many United States Pacific Coast mills have reached a point where congestion of orders prohibits acceptance of new business, and, at the same time, mills are said to be unable to realize financially on lumber manufactured months ago and still awaiting delivery. The situation is reported serious. Added to the industrial worries of mill operators is the report that transcontinental lines will probably ask a 15 per cent. flat advance in freight rates. The secretary of the West Coast Lumbermen's Association advises that a 15 per cent. advance in the present West coast rates would make a 57½c rate to Omaha and a 62¾c rate to Chicago, while the advance from yellow pine territory to these great consuming districts would be but 3.06c to Omaha and 3.09c to Chicago. This would practically place West coast mills at a disadvantage of 4c per hundred pounds in competition with yellow pine as against the present rate adjustment.

Owing to the advantageous geographical location of the Southern pine mills to the principal consuming markets, fir on a long transcontinental haul is unable to compete with the Southern wood in many markets. West coast manufacturers understand that any readjustment of freight rates such as has been suggested would further handicap the successful marketing of West coast woods in Middle West and Eastern territory, and would probably disrupt extensive plans of market extension now under consideration by the West Coast Lumbermen's Association.

The weekly association barometer shows the cut of lumber to have been 71,473,429 feet at 132 mills. Orders amounted to 57,089,327 feet and shipments 52,229,630 feet. Orders from Eastern and Middle Western markets were light; due primarily to the mill policy of not soliciting business until relief from car shortage is in sight. Mills still having salesmen on the road advise of exceptional demand, considering the season and the unfavorable weather conditions which have prevailed throughout the fir distributing territory. The association barometer shows that lumber production is still 20.98 per cent. below normal.

Canadian Pencils Making Good

The Weekly Bulletin of the Department of Trade and Commerce reports that a Canadian firm recently sent out samples of lead pencils to New Zealand, the first made in Canada. The report on these pencils has been very satisfactory, and if the goods are up to sample, much business will result. It is understood that substantial orders have been sent to Canada. Some time ago the Canada Lumberman reported the entry of the firm of William Cane & Sons, Ltd., Newmarket, Ont., into the lead pencil producing industry.

The Enquiry Corner

Answers to Questions by Readers
Can We Help You?

Red Oak Prices

Editor Canada Lumberman:— Ottawa, Ont.

We will deem it a favor if you will let us know what mill run red oak is selling at in Toronto or what it is worth by car lots.—MacKenzie Bros.

Very little red oak is now sold "mill run." The practice is to place it on the market as firsts and seconds, which are worth about $65 in car lots in Toronto; No. 1 common, which is worth about $42, and No. 2 common, which is worth about $28.

Where to Obtain Plan Books

Editor Canada Lumberman:— La Tuque, P.Q.

We note the request of Haley & Sons in your March 15th issue, for information as to where they can obtain plan books, pictures, reference books, etc., on modern buildings; also where they can procure models of barns. The writer would also like to receive this information.—The Brown Corporation—W. L. Gilman, sawmill superintendent.

An excellent set of plan books for retailers is published by the Western Retail Lumbermen's Association, Winnipeg, Man., of which Mr. N. G. Neill is secretary. Information regarding the price, contents, etc., may be had by writing to Mr. Neill.

The Forest Service of the British Columbia Department of Lands has also pubilshed an extensive set of bulletins containing plans and specifications of farmhouses, barns, and other farm buildings. These may be had from the British Columbia Lumber Commissioner, Excelsior Life Building, Toronto, and are furnished free of charge.

A plan book is also published by the National Lumber Manufacturers' Association, 925 Lumber Exchange, 11 South La Salle Street, Chicago. Mr. H. R. Isherwood, who is in charge of the retail service department of this association, advises us that he will be pleased to be of service to Canadians, who desire information or wish to purchase any of fthe models of barns and other farm buildings furnished by this association.

Cost of Felling and Peeling Pulpwood

Toronto, Ont.

Editor Canada Lumberman:

Can you give me information regarding the cost of felling and peeling pulpwood in Ontario or Quebec? Yours truly,

Operator.

According to information which we have obtained from extensive Quebec pulpwood manufacturers, the average cost of felling and peeling pulpwood is about $1.50 per cord, which is made up as follows:

Average daily wage	$1.25
Board per day	.40
Supervision per cord	.08
Cost of camp per cord	.05
Tools per cord	.04
Total	$1.82

The average number of cords per man per day is about 1.22, so that the cost per cord works out very near $1.50.

There are many things to be taken into consideration which may vary the cost to some extent one way or the other. As trees are never all well peeled and all branches well trimmed in the peeling season, there is, during the sawing into four-foot lengths, a good deal of work to be done to remove spots of bark and to trim knots or branches. The cost also will vary according to the accessibility of the operation, the roughness of the ground, character of the stand as to cords per acre, and the general soundness of the timber. Sometimes insect depredations make the trees difficult to peel. A factor which may effect the cost considerably one way or the other is the availability of experienced men for the operations. The figures given above are those for the operating season which has just passed. The outlook at present is that this year it will cost from 15 to 20 per cent. more.

The cost of supervision per cord in the above table is estimated on the basis of the number of cords peeled per day by an ordinary crew and allowing the foreman or contractor $50 per month wages.

White Pine Price Quotations

Editor Canada Lumberman:— Brooklyn, N.Y.

I would be pleased if you would advise me what the white pine as quoted in the Canada Lumberman would average in width per car load. Also from what width upwards do the quotations cover, namely, 4 in., 6 in., 8 in., or 10 in., etc., wide, particularly in relation to the ruling quotations in Toronto and Tonawanda. I am also interested in the South African market. In this trade we usually call for a grade about equal to fine common or carpenter's clear, 12 in. and up wide in 12 ft., 14 ft. and 16 ft. lengths, on about the following specifications: 75 per cent. 1 in., 15 per cent. 2 in., and a shelving grade about equal to the selects from No. 2 common. I would be pleased if you would give me an indication of prices ruling today. The shelving specification would be 70 per cent. 12 in., 30 per cent. 13 in. and up in 12 ft., 14 ft. and 16 ft. lengths. —W. A. Johnstone.

The 1-in. and thicker cuts quoted in our Toronto price list generally run 7-in. and wider. They show an average of 9½ in. The 1½ in. shows an average of 10 to 10½ in. The 2 in. shows an average of 10 to 11 in. The stock referred to in the above question as "fine common or carpenter's clear" would probably cost to-day from $75 to $90 per thousand feet. It is probable that this line would now have to be bought from firms in the Tonawanda or Buffalo district. The shelving grade, or selects from No. 2 common, can be had to-day at about $40 at the mill in Northern Ontario.

River Improvements in Canada

Editor Canada Lumberman:— Washington, D.C.

There are certain opponents of river improvement in the Congress of the United States, who claim that logs, timber and forest products generally should be omitted from statistics of water-borne commerce, "because these things can be floated to destination and no improvement is necessary for the purpose."

In my opinion, this position is radically wrong. I have known personally of great losses occurring, both through damage from striking obstructions and through the delay due to low water, and I know as a fact that not only forest products in various stages of manufacture, but logs, are transported in boats and barges in preference to floating or rafting them in the streams.

It is my impression that the Dominion Government recognizes the lumber industry as one which is worthy to be fostered and that considerable sums of money are spent in the improvement of rivers for the express purpose of facilitating the passage of logs and the prevention of damage and delay due to rocks, sandbars, etc.

It would be a great favor if you will be kind enough to inform me whether or not this is the fact, and if you will state also whether any considerable quantity of logs or other forest products are transported in boats or barges on Canadian rivers.

By the census of 1910 the lumber industry in the United States was third in importance. If you have the figures at hand showing the rank of the lumber industry among the industries of Canada, kindly give me information on this point also.—S. A. Thompson, Secretary, National Rivers and Harbors Congress.

In order to reply to the above enquiry, the Canada Lumberman secured information from the Dominion Government and various provincial governments in regard to this subject. The substance of the information thus obtained is as follows:

The Forestry Branch of the Department of the Interior, Ottawa: The Dominion Government spends considerable sums of money upon the improvement of rivers for the purpose of facilitating the passage of logs. This work is carried on by the Department of Public Works.

Considerable quantities of forest products are transported in barges and boats, but our branch has no figures on this subject. Shallow drop barges are used by the mills operating in and about Ottawa to carry lumber on the Ottawa River and Rideau Canal. The Chambly and Trent Canals are also used for transporting lumber. We believed that the pulp mills operating in the Niagara Peninsula receive a considerable proportion of their wood via the Welland Canal.

In the 1911 census report the timber, lumber, and remanufactures industries are grouped and compared with fifteen other similarly grouped industries. With regard to capital invested, number of employees on wages, or wages paid, the timber, lumber, and remanufactures group stands first in each case. Measured by the number of establishments, cost of materials, or value of products, this group stands second.

Dominion Government's Position

Department of Works, Ottawa: Mr. Thompson, in his letter addressed to the editor of the Canada Lumberman, states that there are certain parties in the United States Congress who claim that logs, timber, and forest products generally should be omitted from the statisics of water-borne commerce, because these things can be floated to destination and no improvement of the waterways is necessary for the purpose. These parties cannot have any knowledge of the method of marketing timber, etc., in Canada, because, from the records at our disposal, on the River Ottawa, as far back as the year 1829, works were constructed at this city for the passage of square timber by a private individual, but these particular works were taken over by the government in 1849, although some other works on the Ottawa River were assumed by the government in 1845, and the government had commenced construction of other works on the Ottawa in 1842.

Since Confederation, July 1, 1867, in a very large number of cases, as the Dominion Government derived no benefit from the dues on

timber cut on Crown lands, which were exclusively the revenue of the provinces where the timber was cut, new works, when required, were principally constructed by private companies, incorporated for that purpose, either under the general act of Old Canada or individual statutes enacted by the provincial legislatures, excepting where the water affected touched upon the rivers under the Dominion control, in which case the Dominion Government also enacted similar laws.

Actuated by the same principles that caused the government to take over such works in 1845 and afterwards, in order to assist the lumbermen to market their timber, the Ontario Government spent considerable money in the construction of dams for holding up water in the spring for driving logs on the tributaries of the Trent and other rivers.

Another question of Mr. Thompson's is, whether any considerable quantity of logs or other forest products are transported in boats or barges on Canadian rivers. In reply to this, I can safely say that but a trifling quantity of logs in the rough are transported in boats or barges. A large quantity of manufactured lumber is forwarded from Ottawa to Montreal and Quebec by barge, and a large quantity of pulpwood is carried by boat from points in the Province of Quebec to western ports, but for sawing or manufacture into marketable material, we know of no logs being so transported.—E. Thos. Smith, Collector of Public Works Revenue.

Lumbermen Improve Ontario Rivers

Department of Lands, Forest, and Mines, Toronto: Mr. S. A. Thompson's enquiry directed to the Canada Lumberman has to do entirely with federal action, and we have forwarded it to the Deputy Minister of Trade and Commerce, Ottawa. We may say, however, while large sums of money are spent in the improvement of the stream to facilitate the driving of logs, this is spent entirely by the individual lumbermen, under the provisions of the Rivers and Streams Act and the Timber Slide Companies Act. It is not correct, however, to say that any considerable portion of the logs lumbered in the province are transported on boats, as this only becomes necessary when hardwood has to be transported some distance. The soft woods are floated down the streams in rafts.

Forest Branch, Department of Lands, Victoria, B.C.: The British Columbia Government does not spend any money in the improvement of streams for driving logs. The amount of logs or other forest products transported in boats or barges on the rivers of British Columbia is very small, except on the ferry barges operated by the railroads between Vancouver Island and the mainland and on the Okanagan, Kootenay, and Arrow Lakes.

Crown Lands Department, Fredericton, N.B.: In reply to Mr. S. A. Thompson's enquiry addressed to the Canada Lumberman our answer to the first three paragraphs of his letter is as follows:

1. There is no other means of getting logs to mill in this country, with very small exception, than to drive them down the streams. These streams, especially the smaller ones, have to be cleared out, rocks blown out, and dams constructed to enable the lumber to be driven.

2. We never heard of logs being transported in boats or barges. This is never done in this province.

3. The Dominion Government assist is removing obstructions in large waterways, but do not assist in clearing out small streams to make them drivable.

River Improvements in Quebec Province

Department of Lands and Forests, Quebec, P.Q.: In regard to the enquiry made by Mr. S. A. Thompson about river improvements, there are two kinds of improvements on rivers and lakes in this province—first, river and lake improvements made prior to Confederation, in 1867, for facilitating the floating of logs. These improvements, by virtue of the British North America Act of 1867, are administered and controlled by the Dominion Government, which collects tolls for their use by those who float timber down rivers and lakes. Second, river and lake improvements made by any person, firm, or company, to facilitate the floating or transmission of timber, rafts, or crafts, etc., down rivers and lakes. All those constructing or executing such improvements may exact tolls from those using them, said tolls to be fixed by the government.

The collector of revenue of the Department of Public Works (federal government) publishes every year a report, in which are included in detail the amounts spent for improvement and the revenue accrued from slides and booms, and the number of logs and pieces floated is also mentioned. Thus we find that on the St. Maurice River the number of pieces of all kinds of timber that passed through the works was equivalent to 9,506,300 pulp and sawlogs.

Further British Import Restrictions

The British Board of Trade recently gave notice that "as and from April 2 the general licenses now in existence for the importation of the following articles will be revoked and special licenses must be obtained for each consignment arriving on or after that date:

A. Wood—Beefwood, boxwood, dogwood, greenheart, hickory, lancewood, lignum vitae, padouk, sabicu, sandalwood, birch timber in logs (i.e., waney timber ex Canada, Labrador, and Newfoundland).

B. Wood Manufactures—Barrels, tops and bottoms for; barrels, wooden hoops for; birch, maple and persimmon blocks, and squares for bobbins, reels, shuttles, and spools; bobbins, reels, shuttles, and spools; box shooks, box boards, screws made of wood, tool handles, brush handles, painters' (of ash and hickory); case boards, empties returned; flooring boards (planed and prepared, tongued and grooved, or non-prohibited woods); rules, measuring, of wood; oars made from ash wood; pine blocks for matchmaking; plywoods, wooden pulleys, wood wool.

Mountain Lumbermen Advance Prices One Dollar Per Thousand Feet

The Mountain Lumbermen's Association held a meeting recently at Calgary, Alta., and the discussion held in regard to market conditions showed that manufacturers will ask an increase of about a dollar a thousand upon the prices previously prevailing. The chief reason for the advance is the increased cost of all mill supplies and the higher cost of equipment and maintenance. Members present were of the opinion that there was very little to fear in the way of competition from manufacturers in the United States at present, as they also are facing higher producing costs and are handicapped by the difficulty in obtaining cars for shipment.

The association decided to send a petition to the Dominion Government asking that work be discontinued during the present summer on the Banff-Windermere highway, which has been under construction during the past two years. The work on this road employed practically no men last summer, but more than 400 men during the summer previous.

Beaver Board Companies Enlarged Operations

The Beaver Board Companies report that the Beaver Board Timber Company is now operating camps in Northern Ontario, and will make a start soon in the Province of Quebec. The Beaver Board Timber Company was recently formed as a subsidiary organization of the Beaver Board Companies, with the intention of securing additional supplies of spruce timber for us in the wood pulp mill of the Beaver Board Companies, Thorold, Ont.

The lumber interests and plants of the Smith-Fassett Company, at Charlton, Ont., have been purchased, including a sawmill, yards, trackage, stables, warehouse, etc., together with timber limits, camps, boats, logging, and driving equipment.

The timber lands which have passed into the possession of the Beaver Board Timber Company are located on the Blanche River, adjacent to Long and Kimagami Lakes, in Upper Ontario. A quantity of wood will also be taken out of Lake Temiskaming which will be secured in the Province of Quebec. Extensive additions are being planned to the equipment secured from the Smith-Fassett Company. The sawmill at Charlton is to be materially enlarged. Arrangements have been made for the installation at Charlton of one of the new improved drum barkers, which will have a capacity of 250 cords per day. This mill will employ 100 men, and will be operated throughout the year. During 1917 the cut will amount to between 10,000 and 15,000 cords of wood. The camps this year were late in starting, but future operations at Charlton will provide between 30,000 and 40,000 cords per year. Plans are also being made to take out next year a large cut of sawlogs to be made into lumber.

The spruce logs are cut and rossed at the Charlton plant, and will be taken to the Beaver Board wood fibre mill at Thorold, Ont., where a special wallboard machine builds the spruce fibre into single-ply stock. This stock is laminated to form beaver board at the finishing plants at Ottawa, Ont., and Buffalo, N.Y. Among the equipment being installed at Charlton is a Waterous seven-saw pulpwood slasher.

U. S. Production Shows 10 Per Cent. Increase

Supplementing an earlier statement based on reports from 704 United States sawmills, the Forest Service announces that fuller returns indicate a lumber cut in 1916 approximately 9.7 per cent. greater than that in 1915, instead of 11.2 per cent., as shown by the first returns. The figures are not yet complete, but show a cut of 20,419,186,000 feet for 975 mills, compared with a cut of 18,612,460,000 feet by the same mills in 1915.

The compilation covers the cut reported by identical sawmills, each of which cut more than five million feet in either 1915 or 1916.

The increased production in 1916 over the preceding year for the mills in 23 states shown was 9.7 per cent. In the seven Pacific Coast and Southwestern States the per cent. of increase was 14.1, while for the remaining states, as a group, the increase was but 7.3 per cent. In 1915 the estimated total production of lumber for the country was thirty-eight billion feet.

The Timber Import Trade of Australia

Canada's Share in the Immense Increase of Manufactured Wood Goods Trade Greatly Decreased During the Past Ten Years

Goods Trade Greatly Decreased During the Past Ten Years.

In his report upon the timber import trade of Australia, published recently by the Department of Trade and Commerce, Mr. H. R. MacMillan, referring to "The Use of Timber in Australia," reports in part as follows:

The estimated annual consumption of timber in Australia, excepting for fuel, posts, piles, and unmanufactured fencing material, is given in the following table:

	Quantity. Feet B.M.	Value.
Domestic Australian production .	500,000,000	$16,800,000
Imported lumber	432,000,000	14,318,400
Imported logs	23,000,000	580,800
Total	955,000,000	31,699,200

The average annual consumption of manufactured timber per head, 196 feet board measure, is not so great as might be expected in a new conutry, the populated parts of which are fairly well clothed with trees. The truth is that, although very little of populated Australia is destitute of trees as is the Canadian prairrie, and the greater part of the settled country is at least sparsely wooded, it is only in Western Australia and Tasmania, states containing together barely 11 per cent. of the population of the Commonwealth, that a large proportion of the buildings are constructed wholly of wood.

The annual per capita consumption of wood in Australia, aside from railway sleepers, is 175 feet; the annual per capita consumption on the treeless Canadian prairie, on the same basis, is 800 feet.

There are several well-defined reasons for the much smaller consumption of timber in Australia.

Land settlement and development are not proceeding so rapidly in Australia as in Canada, with the result that a much smaller proportion of new buildings, transportation facilities, and public works are erected annually.

Almost two-fifths of the population of Australia live in six cities; 43 per cent. of the total population live in towns containing 3,000 or more persons. This urban population does not require the same proportionate number of separate dwellings and outbuildings as an agricultural population. Substitutes are everywhere used in a greater proportion by an urban than by a rural population.

Few Wooden Houses

Over 97 per cent. of the population of Australia is of British descent. This European population has transplanted to Australia a European type of house—the workman's cottage of London, Birmingham, or Manchester, brick walls, tile or iron roof and plaster finish covers solid square miles in Adelaide, Melbourne, and Sydney. No distinctly Australian type of building has been developed as in the case of Canada, where two hundred years on this forested continent has evolved the wooden building. When considering the erection of a new building the Canadian thinks in terms of wood and the Australian thinks in terms of brick or stone. The one searches for the wood, the other searches for the substitute.

The higher cost of timber in Australia has prevented its greater use for building purposes. The cost to the consumer in normal times for either the native or the imported timber has been $45 to $65 per thousand at coast points, and considerably higher to the many builders forced to pay inland freight or haulage. Contrasted with this, bricks, the manufacture of which has been extensively undertaken by state enterprise, may be purchased for less than $10 a thousand. A brick house is usually built at a cost of $500 per room. The cost of building a wooden house of the same type is barely 10 per cent. less.

The per capita consumption of wood in Australia is now probably at the minimum. The continued concentration of the population in cities is only possible if manufacturing industries are further developed, which, in turn, will lead to an increased use of timber. On the other hand, a greater distribution of the population through the country in agricultural pursuits will also result in an increased demand for timber.

It may fairly be expected, therefore, that more intensive development of the country will lead to an increased per capita use of timber. Another influence for the increasing of the use of lumber in Australia, which lies largely in the hands of lumber producers and exporters of the Pacific Coast, is the development in Australia of the timbered and half-timbered type of construction, so adapted to Australian climatic conditions.

The production of native woods is so near the peak that any increased used of timber must be met by an extension of imports.

The imports of timber into Australia now constitute about 50 per cent. of the total consumption for all purposes.

The imports for the year 1913 were:

Class.		Quantity.	Value.
			$
Rough lumber	M ft. b.m.	340,987	9,381,000
Dressed lumber	" "	82,471	2,942,400
Logs	" "	23,438	580,800
Door stock	" "	5,027	216,000
Shooks	Number	4,874	191,880
Veneers	M sq. ft.	1,959	265,920
Laths	Pieces	46,337,000	192,000
Picture and room mouldings			142,500
Staves		3,640,000	109,440
Pickets		2,302,000	40,800
Hickory	M ft. b.m.	168	25,440
Shingles	Pieces	1,527,000	10,560
Bent wood			9,600
Doors	Pieces	1,400	2,112
Architraves and mouldings	Lin. ft.	80,000	1,200
			14,117,712

The countries from which the import timber trade of Australia is drawn are shown below:

Country of Origin	Quantity in Feet B. M.	Per cent of total.	Value.	Average Value per M ft. B. M.
		%	$	$
United States	258,222,000	57	6,874,560	26 62
New Zealand	64,487,000	14	2,078,880	32 33
Norway	62,431,000	13	2,120,640	33 96
Sweden	29,475,000	6	1,116,000	37 85
Japan	15,848,000	4	339,840	21 44
Canada	13,274,000	3	526,080	39 61
Russia	11,138,000	2	334,560	30 00
India	649,000	....	85,440	131 65
Straits Settlements	266,000	....	6,864	25 80
Germany	184,000	....	10,560	57 40
Netherlands	38,000	....	7,056	185 68
United Kingdom	15,000	....	2,352	156 81
Total	456,027,000		13,502,832	

An increasing dependence upon outside sources of timber supplies is shown by the growth of importation in the past decade. Foreign timber constituted only 32 per cent. of Australia's consumption in 1903; it filled 48 per cent. of the total timber uses.

The overwhelming lead of the United States in this trade is due to the control possessed by that country of Douglas fir exports. Over 92 per cent. of the lumber exports from the United States to Australia are Douglas fir. The United States monopoly of redwood, a softwood of growing importance on the Australian market, is a factor in improving the country's export position.

New Zealand exports to Australia softwoods, white and kauri pine, used extensively in box manufacture, shelving, lining, furniture factories, and industries. The import of these woods into Australia has fallen off by over 35 per cent. in the five years 1908 to 1913, a consideration of influence in increasing the importation of Pacific Coast woods. The hardwoods of New Zealand, chief of which is rimu, are, however, being exploited and exported to Australia in increasing quantities as the softwood forests are depleted. The hardwoods are used almost wholly for flooring and lining.

The rapid cutting of New Zealand forests, which are only estimated to contain thirty years' supply at present rate of use, will prevent a great increase of exports to Australia unless prrices are substantially increased.

A great factor in New Zealand's trade with Australia is the Australian tariff preference applying to timber, extended to the sister Dominion. This tariff gives New Zealand an advantage over Canada which is indicated in the following tabular statement:

Australian Tariff on Rough Boards

Species and country of origin.	Tariff per M. ft. B.M.
New Zealand white pine and rimu	$2.40
Canadian Douglas fir and spruce	8.40

The extension of this tariff preference to include other dominions would be a factor of the greatest importance to the Canadian trade.

Scandinavian Timber

Norway and Sweden together still supply to Australia nine times as much timber yearly as does Canada. This holds true in spite of

the fact that Scandinavian standing timber is more valuable than Canadian and the freight distances are greater. The distance from Baltic ports to Australia is 13,000 miles, and the distance from Western Canadian ports is 7,000 miles.

The Europeans who first developed Australia imported their necessary softwoods from the only source with which they had connections, the Baltic and the Scandinavian Peninsula. This timber became the standard softwood of Australia, and even yet it is the standard of quality for common joinery. The standard of dimension introduced by the 3-inch by 9-inch Baltic deal still lingers to a certain extent.

Douglas fir, however, because of its cheapness and greater latitude of sizes, together with the assistance given by a tariff penalizing all sizes below 6 inches by 12 inches, sizes which include the whole of the Scandinavian output, has almost driven out the Scandinavian rough deal. It is in dressed lumber that Scandinavian countries are still pre-eminent in the Australian market. The standard of quality and size for flooring, lining, and weatherboards set in Australia two generations ago by the mills of Norway and Sweden still holds absolutely good. The large trade with Norway as compared with Sweden, although Sweden is the more important timber-producing country, is due to the fact that Norway specializes in dressed lumber, Australia's chief imports from the Baltic.

Japanese Competition

Japan, ten years ago unknown in the Australian timber trade, has passed Canada. The imports from Japan are a soft, weak, knotty white pine for boxes (known as Pacific pine), oak and ash for industrial purposes.

Several unlikely countries—Norway, Sweden, and Japan—exceed Canada in the exports of timber to Australia. At the beginning of this century Canada was exceeded only by Norway and the United States. The present exports from Canada are 80 per cent. Douglas fir and 20 per cent. spruce deals from the Maritime Provinces. The trade in the latter has been seriously reduced by the introduction to the Australian market of Japanese pine and Pacific Coast hemlock and spruce.

Russia's exports of spruce and pine deals, from the White Sea and Pacific ports, are growing, and if no change is made, bid fair soon to exceed Canada's trade.

The most striking feature of the shifting of the trade amongst the various countries is the big gain made by all the leading countries competing, excepting New Zealand and Canada, which lost heavily, New Zealand because of exhaustion of supply and Canada for other reasons, which will be discussed later. Sweden has largely increased her share of the trade by specializing to a greater extent on the export of dressed spruce and pine. Two practically new sources of supply have been opened up in the ten years, one of which—Japan—has already exceeded Canada in her exports to Australia, and the other of which—Russia—in less than ten years of trade development, has reached Canada and possesses embarrassing possibilities for the future.

Australia is a distributing point from which the Pacific Islands are supplied with timber. The re-exports of imported timber amounted to only 2,000,000 feet in 1913, a normal year. This trade is not likely to assume important proportions.

The purchase of such manufactured material as lath, mouldings, three-ply veneer, box shooks, staves, and pickets have become very important.

The leading place held by the United States in this field of trade also is due to the almost exclusive control now possessed by that country of Australia's importations of lath, pickets, and shingles and to the important influence exercised on the supplies of staves and mouldings.

Russia's exports of manufactured wooden goods to Australia consists only of three-ply alder, birch, and cottonwood veneer, principally alder.

Germany's trade was two-thirds in picture and room mouldings, in which she held a commanding position in the Australian market, and one-third in three-ply alder veneer.

Canada, while standing better proportionately in manufactured goods than in lumber, is nevertheless a poor fourth, and, were it not for box shooks, would be still lower on the list. The most important items from Canada in this class of exports are in the order of their importance, box shooks, staves, and lath.

The United Kingdom supplies chiefly three-ply veneer, and Japan, a newcomer in this trade, furnishes staves and laths.

Canada has not shared to any etxent in the immense growth of Australias' imports of manufactured wood goods. Canada's second ten years ago has now dropped to an uncertain fourth place, and has been passed by Russia and Germany, and almost equalled by the United Kingdom and Japan. Japan, at her present rate of progress, with the forests of Northern Japan and Manchuria at her back and new, modern machinery recently installed, is likely to play an important part in this trade.

Should Brand Exports from Canada

Australian Importer Thinks Timber Marked "Canada" on Both Ends Would Capture the Trade

The use of a "Made in Canada" stamp in connection with exports of Douglas fir from British Columbia to Australia is forcibly recommended in a letter recently received by Mr. D. H. Ross, Canadian Trade Commissioner at Melbourne, Australia, from a leading lumber dealer of Australia. In the course of this letter the writer says:

The time has now come when each part of the Empire must and should do its best to help the other, and there is no better way of making a success of this than by trading. I am not a believer in a preference tariff, but do believe in preference to our own race; and, if my suggestions were carried out, I see no reason why the greater part of the Oregon (and, I might add, other lines) should not come from Canada.

In the past you have not had a fair share of our trade. It would be as well to take a few figures based on the year before the war (1913). We are safe in basing it on the size 12 by 6 and its equivalent and over. We find the imports of Oregon or Douglas pine into the Commonwealth were:

Canada	3,890,000 feet super.
United States	123,145,000 "

These figures should be reversed, or at all times altered materially, say, two-thirds from Canada and one-third from the United States.

Keep this well before you: Whilst the war is on trade is brisk and men are in constant work, whether at their own special trade or at something else. When the war is over no one knows what will take place, and it is for us all to try to make work within our own Empire. My suggestion is this, that all timber coming from Canada should be branded at each end with the word "Canada."

A well-organized campaign is necessary; also keep this well before you: The timber merchant does not count; it is the architect and the general public. The architects specify fully 80 per cent. of the Oregon used, and if in their specifications Canadian Oregon or Douglas pine is mentioned, the trade must stock it or lose the business. If the Institute of Architects decide upon this course, then the trade must follow. It is no use the trade trying to supply American, as the clerk of works will only send it back. Besides this, it will be necessary to have some inspector going round the yards to see that they hold stocks of Canadian.

Besides the brand "Canada" there should also be a mill brand, for this reason: It makes keen rivalry amongst the mills and leads to better average shipments. All the Baltic mills brand the whole of their output. It has been made a success of here; then why should it not be with your Oregon? It goes without saying that the railways and the Public Works Department, both large consumers, would always specify Canadian Oregon.

The freight on Oregon has always been far higher than the f.o.b. cost. I take it you would always be on a level with freights. This being so, if your timber were branded and specified you might obtain 2s. per 1,000 feet more; this is under 2½d. per 100 feet. As the distributing trade, which is an association and bound to prices, have a very fair margin on Oregon, 3d. per 100 feet nor yet 6d. per 100 feet is not going to act against yours in any way. If the architects specify and you brand, the trade must buy, and can then afford to pay slightly more for yours.

So soon as the first cargo is landed in Melbourne the representative would go on to Sydney and do the same there. The Sydney market will be more difficult to work than the Victorian, still at the moment there is a patriotic wave going through the whole of the Commonwealth, and if you move at once you will undoubtedly obtain the benefit. It is no use waiting until the war is over. You are aware Sydney imports far more Oregon than Victoria, yet it is Victoria that will take on the branding quicker than New South Wales, and if it once takes in Victoria, it will through the rest of the states.

I cannot too strongly emphasize the fact that everyone within this Commonwealth would prefer to trade with Canada in preference to the United States, provided they are sure of getting their supplies and of equal quality. You may state that the United States, in order to regain the market,, would cut the prices. I doubt it, for you must remember it is on the f.o.b. Freights must not be taken into account. Even if she did, it is the architects and the general public that will decide the question; and, as stated, there is a fairly large margin between the wholesale and the distributing trade. It will not pay the timber merchants to take American.

In the past the trade has been done chiefly through the large American commission houses, who have speculated not only on the timber itself, but also on the freights. I am firmly under the impression that had the branding been adopted before, the United States would not have had the same chances. Still, these American commis-

sion houses are not blocked from doing trade, as they can still buy Canadian Oregon, and, naturally, if the preference is for Canadian, they are going to do so.

By acting qickly you have an advantage. Trade here is dull, and there are not many buyers about, and stocks are being gradually worked down, so that the risk you run at the moment is practically nil. Another fact you must not overlook is that many of the cargoes coming from America have not been satisfactory, and even lately there have been a good many complaints. No doubt we will have the same from Canada, and it is for this reason I suggest that each mill should have its own brand, as the trade will then know which is the best. We now sell brands of all timbers—why not of Oregon?

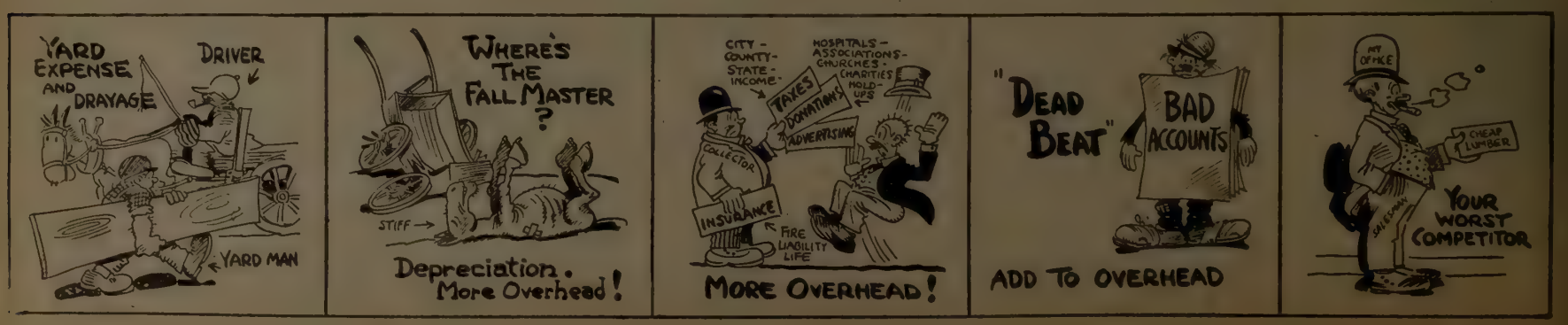
Overhead Costs Shown by Cartoons

Humorous Delineation of Items Drives Problem Strongly Home—Associations Studying Cost Details

Promptness to discover the important features in connection with retail lumber yard problems and readiness to pass on all information that is of general interest characterizes the workings of the successful retail lumber associations that have developed in Canada and in the United States. These two features are the backbone of success in all association work. The old idea that when one finds something out that is of importance he should keep it to himself is exploded, and the great idea upon which modern business success has so much depended is that co-operation is more valuable to a man, or a firm, than individual effort. One of the greatest enthusiasts in connection with retail lumber association work in the United States is Mr. George N. Glass, of the Keystone Lumber Company, Pittsburg, Pa. When the Ohio Association of Retail Lumber Dealers held their last annual convention Mr. Glass went along in order to give them an illustrated talk on "Overhead." Estimating overhead expense is probably more important than any other single feature in connection with a retail business, and retail associations are devoting much of their time to the study of this problem. Mr. Glass' treatment of the subject was very forcible. His whole idea was to impress upon his hearers the value of a knowledge of what it costs to sell lumber, realizing that, with such knowledge, the retailer will regulate practically all of his business dealings according to sound financial ideas. To drive home his points Mr. Glass made use of a series of cartoons illustrating in graphical and distinct manner just how overhead costs begin and what field they cover. We reproduce a series of these cartoons. They speak for themselves and show that the retail lumber dealer who ignores any good means of ascertaining his overhead is groping in the dark and conducting his business on a losing basis. "Overhead" is far too hazy an idea in the minds of many a retailer, and, in fact, in the minds of other business men. We venture to say that after looking through Mr. Glass' series of cartoons on the subject our readers will have a more distinct and useful idea of overhead than they ever had before, even though they may have studied the matter pretty thoroughly.

The Ohio Asociation of Retail Lumber Dealers, partly as a result of Mr. Glass' address and also as a result of their own previous deliberations, have included in their activities for the present year the collection and distribution of extensive data on cost accounting which is to be furnished to the members. So convinced have they become of the value of this work that they have decided to increase their membership fees substantially, grading them upon a sliding scale, according to the volume of business done, in order to cover the exceptional expense that will be involved.

We mention all this with a particular object in view, namely, to show retailers in Eastern Canada what is being done elsewhere, and to show how great an extent the association movement is developing. There are many retailers who, without giving the subject the consideration it deserves, will assert offhand that they have no interest in any association. Either they do not know what association can do for them or they are unfairly prejudiced because of experiences they may have had and which they wrongfully apply to their present case. There is no reason why an association of retail lumbermen in the Province of Ontario should not be able, in the course of a very short time, to perform for its members just such valuable work as is being done by the Ohio association.



Riordon Company Reports Record Profits

The annual meeting of the Riordon Pulp and Paper Company, Ltd., was held recently at Montreal. The president informed the shareholders that the profits for the first quarter of this year were excellent, being in excess of any three months in the history of the company. The showing of the Ticonderoga Pulp and Paper Company, a subsidiary of Riordon, was stated to be equally satisfactory. The retiring board of directors was re-elected, and subsequently Mr. Chas. Riordon was re-elected president and Mr. Carl Riordon vice-president. One change was made in the officers. Mr. C. E. Read, of Ottawa, who has been secretary of the company, retires from that post and the treasurer, Mr. F. B. Whittet, becomes secretary-treasurer. The president also drew the attention of the meeting to the company's water-powers, totalling about 30,000 horse power, and located near the mills in Merritton and Hawkesbury, and suggested that further development of these be started so soon as the cost of construction approached reasonable figures.

Eastern Lumbermen Hold Quarterly Meeting

The second quarterly meeting of the Eastern Lumbermen's Association was held at Bangor, Me., on April 12. These quarterly meetings are becoming a definite and valuable feature of the association's work, providing an opportunity for the members to meet one another and to exchange views in regard to trade conditions and business problems. On the evening of April 12 a banquet was held, at which a number of excellent after-dinner addresses were delivered, among them being addresses by C. R. Towson, New York, on "Industrial Relations"; Frank W. Rane, State Forester of Massachusetts, upon "Forestry, Both Foreign and Domestic," with illustrations; F. J. Caulkins, Boston, Mass., on "The Value of Associations." Special entertainment features were also provided after the banquet.

A government contract has been let at San Antonio, Texas, for lumber which, it is estimated, will run from 10,000,000 to 30,000,000 feet. The order calls for immediate fulfillment, and a bond was required of the bidder guaranteeing immediate shipment. The destinations of the lumber are kept secret, but the order is for light timbers, boards, and shiplap, the kind of material adapted to temporary quarters for troops.

Overhead Expense in the Lumber Business

An Expert Accountant's Timely Advice to the Trade

By R. S. Pasley

It is a trite commonplace to state that the world has made considerable progress in our day. There is this, however, to be said about that pertinent to our subject, and that is, that the attitude of the business man has undergone a complete revolution on the subject of accounts. The time is not long past, and, unfortunately for some, it hasn't passed yet, when the business man considered his accounts as being the record of what Jones owed him and what he owed Johnson and what the cash balance was. He knew in a general way how things were with him. If he had a good headpiece he knew fairly well, for he could laboriously calculate the difference in his assets one year end over another. He might and probably did, if his credit was good, take into those assets a lot of lumber in his yard for which he didn't have to pay for maybe thirty days, and omit to include the corresponding liability. You can readily see how much money could be made in those days. At any rate, our friend thought he was making plenty, and so he was happy. The chances are he did make money, and again the chances are he couldn't help making money. He may have been the only lumber merchant in a considerable radius. There weren't so many of you in those days; people hadn't yet found out what an easy living could be made in the lumber business, and so he had things all his own way. He could make prices right for himself, and that simplifies things considerably.

Now, however, you have to have accounts, and you can't be satisfied with those accounts except they are furnishing to you the information you need to conduct your business intelligently. Doing business today is vastly more complicated than in the time of our grandfathers, as you all know very well. You have all progressed and gone ahead, but have you made the same progress in the accounting of your business? Competition is keen and becoming keener. You give considerable thought and spend considerable money on the matter of increasing your sales; without sales you cannot do business. But are your profits increasing proportionately to your increased sales, and would the margin of profit on your sales be greater if the price was right, and do you know what the price ought to be? You all think you do, but do you?

Do You Keep Real Cost Accounts?

This brings us to the question of cost accounts. All of you keep some kind of accounts, but not many, I venture to say, keep cost accounts. Since estimating the cost usually means underestimating it, a condition of competition is established which works great injustice to the firm which knows its costs and cannot meet the terms of the firm which guesses at them. It does not make any difference whether the firm is large or small or the volume of business done is large or small, the point is—the concern that does not know its costs, and by that I mean know them the same as it knows the balance in the bank, is working in the dark, shooting blindly and hurting itself and the innocent bystander.

At present one concern in preparing an estimate figures what it honestly believes will be the total cost. Its competitor figures what it knows will be the total cost. "A" knows the cost of the lumber and the labor involved and guesses rather wildly at the overhead, if he doesn't omit it altogether, before adding the profit. "B" knows the cost of the lumber and the labor, and because of having a proper set of accounts, knows absolutely what to add in the way of overhead. When he adds his profit he comes pretty nearly knowing that's what the profit will be if he gets the job. But the hardship is that he is competing with firms who underbid him considerably for the reason that in their estimate serious factors of cost have been omitted—they don't know any better. Some one of them gets the work and lives to regret it. "A," if he is wideawake, is perfectly satisfied not to have the work at the price at which it is given out.

It seems then that the rock on which all split is our old friend overhead. He is a friend in the sense that he is always with us, but the trouble is some of us don't know him when we see him. Right here is seen the advantage of a uniform method of cost accounting in the lumber business. By uniformity in accounting, I don't mean that each of you would adopt the same forms and books as your competitor, nor that the small concern would keep as elaborate a segregation of expenses as might be considered desirable by the larger business.

You realize that there are many different divisions of your industry. Some of you are retail merchants, some of you have a mill alone, and some again have both yard and mill; again, those of you who are manufacturers may be widely different from each other in the products you manufacture. You can readily see then that a cut and dried system of accounts could not be devised to meet the needs of all.

What do we mean then by standard accounts? We mean that if it can be arranged that you speak each other's language when preparing estimates; in other words, that your overhead can be classified on your books so that you can arrange the various items of cost under certain general classifications that you all know and immediately recognize.

I will not attempt here to outline my accounting system, but to illustrate what is meant, I will sketch here for you a segregation of expenses taken from the accounts of a plant consisting of a sawmill, planing mill, hardwood finishing mill, box factory and dry kilns. The accounts are divided into the main elements of Lumber Cost—Operating Expenses, Selling Expenses, General Overhead.

By lumber cost is meant the cost of the logs delivered at the sawmill, including transportation and piling.

Operating expenses are classified under sawmill, planing mill, etc., and in each classification is included the labor, supplies, power, engine repairs, general repairs, sundry expenses, insurance and depreciation. Whether you classify rent, or its equivalent where the plant is owned by the operating company, as divisable among the operating section or as general overhead is left open, providing that this item is treated the same by all of you.

Selling expenses consist of commission on sales, salaries, traveling, advertising, freight outward.

General overhead consists of office expenses, administrative expenses and general expenses. These three divisions are subdivided into the following elements:

Office Expense—Office salaries, postage, printing and stationery; depreciation office fixtures, auditors' fees (This last is a very important matter and must not be overlooked).

Administrative Expenses—Officers' salaries, telephone and telegraph, legal, bad debts.

General Expenses—Dues, accidents, trade journals, revenue tax, charity.

I have not attempted in the above illustration to arbitrarily decide just what classification of accounts you should keep, but have endeavored to indicate that whether your operations begin with a sawmill or with the selling end of the business, you can determine your expenses in the same general way, and know what is included under the above four main headings. A concern wishing more detail could subdivide the above into as many units as desired and still maintain uniformity with other dealers.

Complicated Accounts Not Necessary

Detailed accounts do not mean complicated accounting. In actual practice it rather works out that the fewer the subdivisions of expense that are kept the more involved and complicated a process it becomes to arrive at the actual facts. Executives are not bookkeepers and the accounts ought to be so arranged that the bookkeeper can present results simply, clearly and expeditiously. If he submits a large figure called expense, the busy executive immediately desires to know what may be included in that. The bookkeeper has to go back and dig up, and perhaps has to analyze, the account over a long period. It takes time at a moment when the facts are wanted immediately. An intelligent subdivision of this account on the books would at all times give the desired information.

I would summarize by saying that—First: Each of you, large or small, should have representative financial accounts; that is to say, you shouldn't minimize the importance of knowing at all times the exact facts of your business and in the detail you want.

Second: It is desirable where prices are at all close that you have cost accounts, meaning costs on your operations that dovetail into your financial accounts—not a set of cards showing estimated costs and not forming part of your accounting system. Some manufacturers do not require cost accounts. In a case I have in mind a manufacturer who created certain ideas and had them worked out in his factory, cost accounts other than the material and labor entering into the product would not have benefited him. When the article was finished he added to the material and labor cost one hundred to two hundred per cent. and got his price. If you can do business along these lines you certainly don't need cost accounts.

Third: It is further desirable that you decide upon a general standard of what constitutes overhead and what is manufacturing cost, and that all your minds are in unison on this subject. You will have to educate each other on this point. It is quite feasible that uniform accounting methods can be adopted by the lumber trade, even taking into account the fact that no two of your firms are exactly alike. You can, no doubt, see even better than I can, the advantage that would accrue to all of you if you understood better the language of each other's accounts.

Canada's exports of forest products during the twelve months ending February were valued as follows: 1917, $55,540,515; 1916, $51,464,650; 1915, $41,904,728.

Lumber Best Farm Building Material

Its Adaptability and Price Render It Specially Suitable—Wooden Buildings Easily Altered, Enlarged or Removed

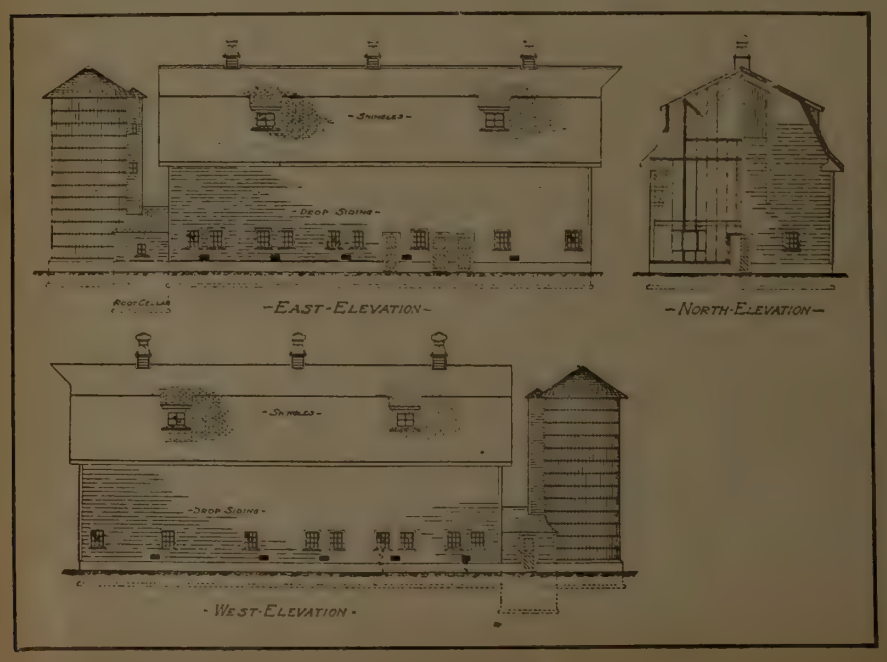
The importance of the farmer's trade to the retail lumberman is widely recognized, but there is much room for more attention being given to it in most cases than has been the rule. As a potential consumer of lumber the farmer is a big factor. Realizing this, retail lumber associations are making a special study of the farmer's trade, and some are getting out valuable bulletins in regard to the farmer's requirements. The National Lumber Manufacturers, through their retail service department, are furnishing good information of this nature, including bulletins and plans of farm buildings, of which the accompanying illustrations are examples. The secretary of the association, Mr. R. S. Kellogg, has devoted much attention to a study of the farmer's building requirements, particularly in connection with lumber. In an address upon this subject recently he dealt with it in part as follows:

The farmers are the greatest users of building material. In the early days farm houses and all farm buildings were generally of cheap and flimsy construction. To-day the farmer is a buyer of all kinds of standard goods, from breakfast food to automobiles. He can afford to build well, and he generally does build well. He uses cement, stone, brick, galvanized iron, clay products, wood, and everything else that will serve his purpose, but the farmer uses more wood than any other building material because it usually is the most easily obtainable, the cheapest, and the most adaptable product for his purpose. Wooden structures can be altered, enlarged, moved, and repaired more easily than those of any other type of construction, while an occasional coat of paint will preserve them indefinitely and dress them up new whenever desired.

Essentials of Construction

Careful attention should be given to the selection of building material. A farmer should not buy a house without looking at it, any more than he should buy a horse or a cow without examination. The wide range of kinds and grades of lumber affords a suitable material for every building purpose. The local dealer carries many of them in stock, and should himself be an expert capable of giving the best advice upon the grades and sizes to be used for every structure. Moreover, the manufacturers of the different kinds of lumber have prepared so much excellent information upon how to use their product that the farmer who intends to build anything, whether it be a chicken coop or a residence, can get reliable advice upon what to use, and how to use it, free of charge if he will only ask for it.

One of the first requirements in good construction is to use each material in the fashion that its properties require. Steel rusts and goes to pieces quickly unless painted. The painting of steel is one of the necessary accompaniments of its use, and we treat it accordingly. In the same way, most kinds of timber will eventually decay if left unprotected in contact with moisture in such places as basement floors, barn sills, fence posts, etc. The heartwood of some species will last many years unprotected, but the sapwood of every wood needs preservative treatment if used under conditions favorable to the growth of decay-producing organisms. The best preventive of decay is coal tar creosote. When wood is given a thorough impregnation with creosote under pressure, it will last indefinitely, but since this is not practical for many farm purposes, a dipping of timber in a simple open tank of hot creosote is worth while, and even a painting with two coats of creosote heated to near the boiling point of water will be useful when applied to sills, board walks, wooden gates, windmill frames, and the joists in the framing of buildings. Dipping of shingles in a creosote stain increases their service and at the same time improves their appearance.



Care of Buildings

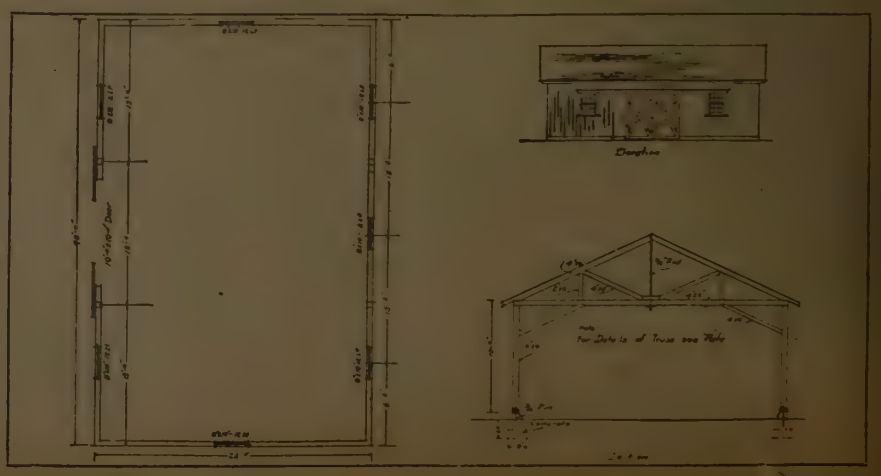
Wooden buildings should be kept well painted, first, because it lengthens their life and perhaps even more important, because of the improvement in appearance. The increase in value of a farm which carries tastefully painted buildings is a matter readily measured in dollars and cents.

Altogether too little attention in both town and country has been given to building in such fashion as will reduce the danger from fire. When a building is being put up, it does not take long nor cost much to put in a great many fire-stops, which generally means the filling of spaces at junction points between studs, joists, rafters, etc., with an incombustible material, such as concrete, mortar, brickwork, asbestos board, etc. The principle is simply to put stops in otherwise continuous openings and thus prevent the spread of flames from one part of the building and from one floor to another should fire start. Probably the most prolific single course of residence fires is the chimney, due either to improper construction of the chimney itself or to the presence of woodwork too close to smokepipes or chimneys. Every chimney should be built from the ground up, with large, solid foundations, and never allowed to rest upon wooden floors, beams, or brackets. If built of brick, the chimneys should never be less than four inches thick, and lined with hard turned terra cotta or fire-clay flue lining. If not lined, they should be at least eight inches thick, and only Portland cement mortar used in any event. Stovepipes should under no circumstances come in contact with or close to the woodwork, and they should be cleaned frequently. The connection between the chimney and the roof should be made with sheet metal flashing. Flue holes should be closed with tight-fitting metal covers—never papered over. Walls of fireplaces should be not less than 12 inches thick if of stone, nor less than eight inches thick if or brick. Careful attention to details of this sort will greatly reduce the fire hazard.

Implement Sheds

It has been well said that the great American implement shed consists of blue sky. Many farms now have $500 to $1,000 worth of machinery, and will have much more with the general use of tractors. The life of farm machinery can easily be doubled—and more—by good care. An implement shed soon pays for itself, and becomes the equivalent of a source of revenue thereafter. The shed may be a simple one, which costs but little, or more substantially built, with a workshop in one end, in a handy location. The main thing is to put the shed at a convenient place in the farmstead, and in a dry situation. Rust and rot are the two great enemies of farm implements.

A corn crib and a granary, or a combination grain storage building, are necessities on every farm. The chief difficulty with many of those already built is that they have been constructed with too little regard for strength and durability. Enough consideration has not been given to the great weight which they must carry, which is particularly severe at the floor and near the bottom of the walls. A building which bulges out, sags, and finally collapses is a bad investment. A little more care in the planning and a slightly increased



expense for heavier timbers will give a building which will stand solid and substantial for many years.

There is no animal that needs better care and protection than the hog, even if we may not fancy some of his habits. The hog has no protective covering outside of his skin. He needs to be kept warm in winter and cool in summer, and notwithstanding his supposed liking for filth, it is highly essential that he be given clean living conditions. Hog houses, therefore, should be so located and built as to provide a maximum of warmth, drainage, ventilation, and sunlight and shade as needed. In this connection it is especially interesting to note a press report of a recent state bulletin upon movable hog houses, from which we quote as follows:

"In speaking of the requirements of the ideal hog house, it is pointed out that wide ranges in temperature are to be avoided, and that warmth in winter and coolness in summer are essential in fattening swine. The results of tests to compare the characteristics of wooden and metal construction are very interesting, and prove conclusively that wood is the more desirable material. In the tests wood and metal houses of the same type and approximately the same capacity were placed side by side, and in each one three hogs weighing about 150 pounds each were confined for eight days. During the confinement the ranges in temperature were recorded, the average range for the wooden houses being 18.4 degrees, and for the metal ones 32.6 degrees. The average range for the outside temperature was 20.7 degrees. It will be noted that this is decidedly in favor of the wooden house, and so it is not very surprising to learn that the average gain in pounds for the hogs in the metal houses was 7 2/3 pounds, and for those in the wooden houses 9 1/16 pounds, an average of 1½ pounds a pig in favor of the wooden type of construction. When it is remembered that the test lasted eight days, that the hogs all received the same kind, amount, and quality of food, the greater increase in weight of the hogs in the wooden houses than of those in the metal ones presents a very striking argument in favor of the former construction material.

"In no instance was the metal house cooler at noon (when it had best be) or warmer after midnight, 1 a.m. (when it had best be), in these observations."

An ice house is a most desirable adjunct to every farm wherever an ice supply can be obtained. With it butter, eggs, meat, vegetables, milk, and fruit can be kept in first-class condition for home use as well as for market throughout the summer. The cost to construct an ice house is not great, and when a cold storage room is added to it, we have an ideal combination of utility and small expense. The main thing in ice house construction is to insulate the walls so as to prevent the entrance of heat and the melting of the ice. Many insulating materials are available, and, wherever they can be obtained, dry sawdust and mill shavings, packed between the walls, do first-rate. Cut straw can also be used, but with any of these it is very important that the material be perfectly dry. More expensive materials, such as cork, hair quilt, mineral wool, etc., are excellent in case one is able to go to greater expense.

Automobile Garages

A prominent physician says that, notwithstanding the supposed healthiness of farm life, a very large proportion of the farmers have altogether too high blood pressure, and are easily subject to diseases which men in a normal condition can resist. He says that this is due chiefly to the fact that the farmer's life has been all work and no play, and for this reason the advent of the automobile has been the greatest health-producing factor in farm life. An automobile should have a house of its own, and not simply be run into the barn wherever handy, or put under a shed. It does not cost much to build a simple garage, but the advantage of having the car always in a place of its own, quickly accessible, and with tools and appliances for repairs, is obvious. Garage construction is so simple that the farmer and his boys can build a garage themselves, if so disposed, and the total outlay need not be more than that required to purchase two or three thousand feet of lumber and a few shingles.

A good barn is almost the first essential, on the farm, and, in fact, judging from the many farmsteads on which one sees a large modern red barn, and a small, unpainted old-fashioned house, the conclusion might be that the farmer thinks it more important to take care of his stock than of his family. At any rate, the barn represents a most important factor in the farmer's income, particularly with the increase in dairy farming. Excellent plans for building various types of barns are easily obtainable, and space need be taken here only to mention the desirability of substantial construction, good ventilation, plenty of light, and a location, properly planned with respect to the other buildings, and the work to be done in the structure itself. Barn ventilation is a subject to which the ordinary builder has given altogether too little attention, and one on which even experts are not agreed. We do know, however, that we cannot have healthy stock, of high producing capacity, unless we give them good living conditions, and of these ventilation is the first essential.

There does not seem to be any such thing as a real farm architect. Like Topsy, most farm houses seem to have just "growed." Occasionally we find an elaborate structure in the country built by a city architect for a city man, who goes into the country to spend his money, but this is not a farm residence. Farm houses need careful planning—more careful planning than any city residence, because the farm house, in addition to being a home and furnishing living quarters for outside help, is also the workshop of the farmer's wife and family. There is a wonderful chance for the improvement of farm houses in the planning of the various parts of the kitchen and the relationship of the other rooms to this focal point. Questions of water supply and sewage disposal, which have been almost entirely neglected on the farm, would save many a life if solved, as they may be, at small cost. Farm houses should be located so as to furnish a good view of the farm itself, wherever possible, and at the same time so as to avoid many necessary odors from other buildings. They should be substantially built, because the same construction that gives warmth in winter makes them cool in summer. They should look attractive from the outside, and some thought given to the planting of trees and shrubbery. It is not necessary to bunch all the trees between the front door and the front gate. Neither is it necessary to have a chicken yard alongside of the house. It is astonishing the difference in appearance and attractiveness a little change in the arrangement of trees and shrubbery in the yard will make. The farmer is rapidly becoming a modern business man and capitalist. If you doubt this, talk with country bankers, who will tell you that they prefer accounts from farmers to those from the business men in the small towns. The farmers' products have a higher purchasing power than ever before. The farmer is now able to build well, and merchants who sell to farmers have learned that he has a knowledge and discrimination to call for first-class goods.

In this connection I have, within the last few days, received some figures based on book records of transactions in a typical small town, where the same company operates a grain elevator and a retail lumber yard. In 1906 the amount this firm paid the farmer for 50 bushels of wheat would buy 1,200 feet of 8-inch No. 1 shiplap in their adjacent yard. In 1916, 50 bushels of wheat purchased 2,800 feet of the same grade of lumber. In 1906, 50 bushels of the farmer's corn brought to their elevator gave him 4,600 first grade red cedar shingles. In 1916 the same quantity of corn gave him 10,000 shingles of the same grade. Like comparisons could be drawn between other farm products on these dates and other building materials.

Customers Want More Than Goods

Ideas and Service Should Be Sold As Well As Lumber—Getting the Buyer's Viewpoint

Getting the buyer's viewpoint is all important to the retail lumber dealer. When you have it you can sell him not only lumber, but all you know about lumber, and all you can give in service, at the same time making a profit on the lumber, the knowledge, and the service. This idea was forcibly explained recently by W. F. Dunlap in an address before the Western Retail Lumbermen's convention.

I am going to try to convey to you a few thoughts from the buyer's side of the retail lumber business, he said, for I believe that the buyer's viewpoint is one of which you should be aware.

To begin with, in my mind, lumber dealers are to-day facing a situation which has been faced by many other retail merchants, namely, the necessity of a complete revision of the old-time selling methods.

The canned soup manufacturer advertises: "Keep a dozen cans of —— soup in the house. Have something when company comes." The talking machine people say: "No dull evenings; the world's famous artists will entertain you. Have it sent home now—pay for it later." The automobile people say: "Don't envy your neighbor; buy a car and enjoy it yourself."

Don't you see that these people are selling three things—ideas, merchandise, and Service—and they are getting the money—your money. I say your money, for half the autos are owned by people who have no license whatsoever to own them. They are spending money—your money—for autos when they should be buying homes, thus laying away their money for a rainy day—not dissipating it.

Why is this true? Because they have been getting more for their money than you gave. They have been getting ideas, merchandise, and service, and you only offered them the merchandise.

Now, coming back to your office, I find ever so many lumber offices having two or three steps before the door that you must climb to get in. It almost looks as though they tried to make it a little harder, to require a little more effort on the part of the consumer before he could get into the office. But suppose he does come to your out-of-the-way location—crosses the muddy street and climbs the steps to your office. When he comes in the door what merchandise greets his eyes? What are you selling? From the looks of your walls calendars—big ones little ones, wide ones, and, all too often, dirty ones. The woodwork is fly-specked, the windows are dirty. Is there

anything there to attract his attention to house building, to arouse his interest and create such an irresistible desire on his part to own a home that he begins to ask questions? Maybe he is planning a house and only came in to buy coal. Is there anything there to make him betray his interest to you or confide in you that he is thinking of buying a mail order house? Not a thing.

Let us imagine an office with clean sidewalks leading to it, no steps to climb to get in, well painted, attractively designed, not a piano box with a sign in front; an office with large plate glass show windows, in which are attractively arranged a few pictures of homes, and a show card or two. On one of these is the lettering: "$9 will buy enough hardwood flooring for the average kitchen. Why not get it for her now?" Another card reads: "The lumber for this sleeping porch only costs $32."

Now, speaking of mail order houses, I want to say that I have seen enough mail order ads starting with small advertisements and then getting bigger and bigger to know that mail order advertising is paying. I say paying, for when mail order ads of any kind grow and grow in size it is a sure sign that it pays, for these people are not philanthropists; they won't spend money unless it is coming back.

When a mail order house gets a hold on the trade in any territory it is not proof of their good buying or selling methods; it is proof of the weakness of the dealer. Why, not long ago, before a bunch of advertising men, the advertising manager of a big mail order house said: "We keep careful track of the advertising in the local papers, and we can tell by that whether the merchants are wide awake or asleep, and if they are asleep we circularize that district to a finish. If they are wide awake it doesn't always pay, and so we keep away."

I found one man had what he called his plan department, where he would roughly sketch or work up any prospective buyer's plans so as to get the buyer's ideas in shape for presentation to the builder or architect. I asked him who designed his houses and he laughed and said: "I will tell you. Whenever I go away on a trip, whether it is a business or pleasure trip, I always carry a camera, and when I find a good-looking house I take one or two pictures of it and then I take the number or find the name of the owner or get it from the mail box. I get home and the photographs are finished and a copy sent to the owner, whom I ask for rough floor plans, giving sizes, etc.

These floor plans I have one of my men draw up to the scale, and then we make an estimate of the cost and bill of lumber, and put the whole on file. I have several hundred of these now, and it has gotten so that lots of people come in here that I never knew had any intention of building, and I sell them a house."

The average lumberman is selling lumber by the foot. A man must first sell a house, a barn—the idea— and then he gets the lumber bill. He is selling ideas plus merchandise. This dealer need not fear the mail order house. He has more than the mail order house can ever have.

Too many men advertise that Jones sells lumber. Make your advertising talk to the reader. Say something to the prospective buyer. Tell Mrs. Housewife a new floor will cost only $9, and every time she scrubs her floor she will think of this when she gets a sliver in her finger. Soon you will have sold her the floor, and maybe a new kitchen.

In conclusion, I want to drive home five facts:

First—Merchandising methods have changed, and if you don't want to change your methods and do business along real merchandising lines, others will, and you will do without business.

Second—The man who sells ideas, plus merchandise, plus service, will make and get business where the man who tries to sell only lumber will fail.

Third—No man buys lumber until he has first been sold a house, a barn, or some other building or improvement.

Fourth—If the mail order houses are cutting in—don't blame the mail order house; blame yourself.

Fifth—Advertising is a wonderful sales-maker if it is properly used and a wonderful money-waster if it is not.

Keeping Retail Stocks Well Balanced

Good Accounting a Help in Buying—Systematic Piling Shows Quantities at a Glance—A Large Firm's Successful Methods

Different methods of accounting and of handling stocks are developed in connection with different businesses, filing systems and other methods varying according to locality, trade conditions, and the personality of managers. A system that has been developed to handle the business of twenty-five building material yards operated by one firm must have much in its favor. Such a system is that of the Spahn & Rose Lumber Company, at Dubuque, Iowa, regarding which Mr. G. D. Rose, secretary and treasurer, says in an article in the American Lumberman:

As a guide in purchasing supplies for the different yards we use what we call a "summary sheet" for each yard. The quantity of each item sold is readily ascertained from these sheets, as they show the inventory as of January 1, 1916, plus the purchases for 1916, as taken from the invoices, minus the inventory of January 1, 1917. In addition to this, the sheet shows the average annual sales over a three-year period for each item. When we get ready to purchase, say, a three months' or six months' supply, we instruct our yard managers to send in estimates of the materials needed for that period and to refer to the summary sheets to estimate the amount rather than to guess at it. Then we use copies of the same sheets in the main office to check up the branch managers' estimates. This enables us to keep our stocks level—that is, not to have an oversupply of one item and an insufficient supply of some other item. Incidentally, it speeds up our turnover and cuts out the possibility of dead stock. Our purchasing agent can go down the summary sheet and see item for item just what is needed. For example, we recently reached the conclusion that prices on a specialty we handle were going to advance and the salesman selling the specialty suggested that we order fifteen cars of this material. Offhand we would have thought the fifteen cars the right amount, but before ordering we referred to our summary, and saw that we had considerable of this stock on hand, as the previous year had not shown sales of the usual amount. A careful check showed that instead of fifteen cars we needed only four. It is in this way that our summary sheets serve as a guide not only against overbuying, but also against underbuying, which is equally bad if we are making purchases just as the market is right.

We instruct our branch manager to get definite terms of payment before selling any goods. The cashier in our main office makes a

No. 8 Week Ending February 24 1917 Yard Blank, Ia.

LATH	RECEIVED	SOLD
Bal Forward	13600	
Invoices		
"		
Retd—Sales		
Balance		
Total		

CEMENT	RECEIVED	SOLD
Bal Forward	47400	
Invoices		
"		
Retd—Sales	200	400
Balance		47200
Total	47600	47600

SACKS	RECEIVED	SOLD
Bal Forward	688	
Invoices		
"		
Retd—Sales	35	
Balance		723
Total	723	723

PAPER	RECEIVED	SOLD
Bal Forward	452	

PLASTER	RECEIVED	SOLD
Bal Forward	414	

FENCE	RECEIVED	SOLD
Bal Forward	23213	

BOOK ACCTS	DR	CR
Bal Forward	133324	
Credit Sales	11379	
Coll on Acct		14327
Coll on Notes		
Cash Chgd Cus		
Mdse Bought		
Disct & Retd		525
Balance		132851
Total	144703	144703

CASH	DR	CR
Bal Forward	13219	
Cash Sales	5285	
Coll on Acct	11327	
Coll on Notes		
Expense		1361
Freight		

NOTES	DR	CR
Bal Forward		
New Notes	1115	
Collected		
Balance		1115
Total	1115	1115

Home Office		
Paid Mdse Retd		100
Cash Chgd Cus		
Paid for imp		
Cash on hand		12837
Total	12983	12983

SALES ACCT	DR	CR
Bal Forward	182737	
Credit Sales	11379	
Cash Sales	5285	
Disct. & Retd		525
Paid Mdse Retd		100
Balance		198776
Total	199401	199401

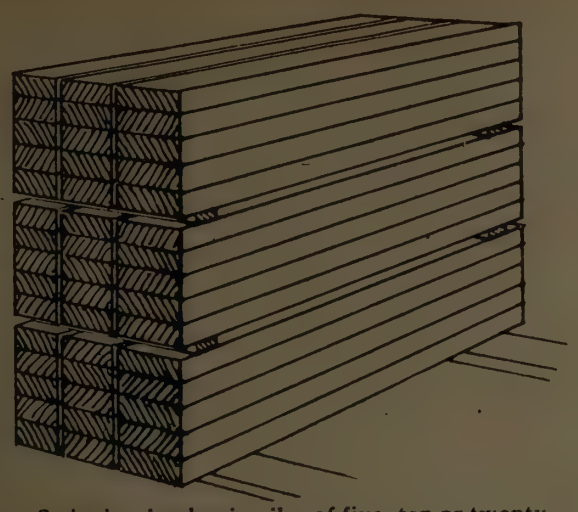
EXPENSE	DR	CR
Bal Forward	38412	
Exp for week	1361	
Balance		39773
Total	39773	39773

Each branch manager makes out a stock sheet each week and sends a copy to headquarters. This sums up the week's business. (See also illustration of weekly inventory sheet.)

Blank, Ia., Yard, Week Ending Feb 24 1917

	Stock Sheet	Actual on Hand	Over	Short
Shingles	193500	193500		
Lath	13600	13600		
Paper	1612	1612		
Lime	800	800		
Cement	47200	47200		
Steel Posts	2084	2084		

This weekly inventory of the more easily counted items shows up any glaring errors on the weekly stock sheet.



Stripping lumber in piles of five, ten or twenty makes counting easy.

record of these terms, and as soon as accounts become overdue he takes up the matter with the yard managers, while the auditors, who also act in the capacity of advisers, follow them up during their visits to the different yards. These terms must be lived up to, and we are now charging interest on all past due accounts. Instead of employing a special collection agency for old accounts, we have formed an agency of our own, which handles these matters.

We came to the conclusion some years ago that it is up to the lumber dealer to handle other building supplies, specialties and accessories, for unless he does, someone else surely will. With the many side lines, cement, wall board, and special kinds of roofing, we must sell these, and consider them as part of our business if we wish to keep up with the volume of past years, to say nothing of increasing it.

"The first year we handled steel stanchions one of our branch managers sold so many more than any other branch that we sent a man to him to learn the reason. He reported that instead of this manager storing his sample stanchion in the outer shed he had it erected in the office, where every farmer who came in could see it. We then sent this investigator to a number of other branches and had him set up displays of various goods. This policy has been broadened until now we are contemplating devoting a special room to displays at a number of the yards. Our branch managers go out among the farmers to sell these specialties, and this creates a market not only for these goods, but for all other materials we sell.

In addition to our permanent office displays, we have exhibits at county fairs, carnivals, and similar affairs.

This publicity is supplemented by weekly ads in the smaller town papers and two or three ads a week in the larger papers. We also send out regularly a variety of circularrs.

To make counting of lumber stock easy we strip all ½-inch lumber in piles of twenty, 1-inch lumber in piles of ten, and 2-inch lumber in piles of five, so that when taking inventory or whenever we desire to know how much of any stock is on hand we can count it almost by eye, as the piles are separated into units of five, ten, or twenty, as shown by the accompanying diagram: The only exceptions to this rule are piles of unseasoned lumber, which are stripped between each two boards.

While we experienced some difficulty on deliveries last fall, continued Mr. Rose, we were helped out of several tight situations by prompt service. To avoid the possibility of being short on supplies this season we have already received and are keeping shipments coming for large amounts of lumber, cement, and other materials. Last year we ordered shipments well in advance of needs, and on many occasions served customers of other dealers who were sold out or could not get shipments.

St. John Log Driving Association Meeting

The annual meeting of the St. John River Log Driving Company was held at Fredericton on April 4. The old board of directors was re-elected, as follows: J. Fraser Gregory, St. John, president; J. A. Morrison, Fredericton; F. C. Beatty, St. John; H. Usher Miller, St. John; A. H. FitzRandolph, St. John. Walter C. Jackson continues as boom manager and secretary. The president reports that he expects about 40,000,000 feet of lumber will be rafted during 1917. No change is being made in the rafting arrangements for this season.

J. R. Booth, the veteran Ottawa lumberman, celebrated his ninety-first birthday on April 5, in good health and spirits. As usual on former birthdays, as well as on every other working day of the year, Mr. Booth spent his time at the office in hard work.

Guaranteed Birch—A New Factor

Radical Proposals for Improving the Market by Standardizing Output and Standing Behind It

By Edward Hines*

The full measure of our responsibilities as manufacturers of lumber can only be estimated by the manner in which we assume and carry out these responsibilities as contrasted with a too easy confidence in the eternal fitness of things. Relying too much on the sequence of events to contrive ways and means to provide for our progress reveals a weakness that can only be overcome by a keen and alert interest in our undertaking, and a determination to overcome inclinations to view too complacently incidents that are vital to our success. An obscured vision is as detrimental to our progress and development as a weak reliance upon precedents to establish a foundation for future efforts. The inertia of minds in submission to older ideas that we let well enough alone, are as fatal to our cause as discordant elements acting in opposition to what is deemed best for our welfare as an institution.

In my somewhat limited acquaintance with hardwoods and the manufacture and manipuation of them, I have been exceedingly impressed with the universal opinion of experts and laymen alike, favoring birch as a wood best adapted to a great many uses. In fact, I have been so impressed by these good opinions, and the comparatively smaller amount of criticism of this splendid wood, that I shall omit extensive reference to its well established virtues, preferring to devote my discussion to the needs for a better understanding of what is necessary to a larger and more expansive use of the wood and how best to proceed in our efforts to enlarge our markets.

Observations I have made during the comparatively short time our interests have been engaged in the manufacture of hardwoods, have impressed me with the diversified demand for birch lumber. I have found it much used for furniture and interior trim on the Pacific Coast, from Seattle to San Diego, where it shares with quartered oak, the favor of architects and home builders. In the southern states, near to the producing localities of oak and red gum, it commands respect, and in the central western and eastern states it enjoys the distinction of being rated as one of the most popular of our cabinet woods.

But there is lacking an intensive cultivation of a wider use of the wood. Here and there we find throughout all of the localities I have mentioned, favorable consideration, that needs only intelligently directed effort to increase the demand for it in the markets where it is already regarded with favor, and to expand to new fields adjacent. This can only be brought about through wise advertising and publicity that is educational and by expert instruction in the use of the wood, involving certain qualities for special requirements.

There are instances, many of them, I venture to say, where larger demands for birch cannot be supplied by any single unit of our organization. As an illustration of the point I wish to convey—a single order for half a million to a million feet of firsts and seconds in various thicknesses, for a larger experiment might be too large an order for any one manufacturer to handle. It would not, however, be difficult to place such an order with several of our members and thus secure to the industry, a desirable account that might otherwise be diverted to a competitive wood. To my mind, this is a most vital issue that should deeply concern us if we contemplate such a campaign for a wider use of birch, as I have good reason to believe we may. Provision should be made to clear such orders through the Promotion Bureau of the Association in such satisfactory manner as would enable the various members to share in the favors that are dispensed, and furthermore, to insure service to the consumer that will carry conviction; demonstrate the value of our organization, and finally enlist the confidence of the user. These are fundamental principles, involving the safety and progress of our industry, and they must not be ignored or too lightly considered in our plans for expansion.

Hardwood Marketing Problems

Hardwoods generally, and birch more particularly, have not heretofore been marketed in the same way as have been most of the softer woods, with which I am personally more familiar. This difference has been due largely to the mixed growths of the timber in the forest, and the comparatively lesser scale upon which operations in hardwoods have been conducted. Selling organizations have accordingly been differently managed, surely upon a much smaller scale, conforming more nearly to the output of each individual undertaking. Smaller operators have seldom distributed their products direct to the users of lumber, usually selling to jobbers or wholesale dealers. Some of the larger operators, accustomed to conditions prevailing with softwoods and unused to the customs obtaining with the hardwoods, have not regarded the latter product with so much careful consideration as

*An address delivered before the Northern Hemlock and Hardwood Manufacturers' Association.

they should, in fact, have oftentimes doubted the real commercial value of it, and in consequence of this somewhat superficial interest, have neglected many opportunities which we are now striving to establish permanently.

The very methods of distribution through channels that, if not wholly alienated from a consideration of first costs of stumpage and manufacture, certainly with no regard for what we must net in the future for stumpage and reasonable manufacturer's profit, are seldom concerned with them beyond their own immediate personal profit, have contributed in no small degree to discourage manufacturers of hardwoods. True, these influences should have been met with sterner and more strenuous opposition, but a cohesion of the various units of the hardwood lumber industry has been woefully lacking, and co-operation well nigh impossible under conditions that have formerly existed. Abuses that have conspired to prevent advancement have not been treated with suitable correctives, and it has been impossible to administer business successfully under such trying and discouraging circumstances.

But, everything yields to consistent, concentrated and persistent action. Nothing is impossible if the spirit of loyalty aids an enthusiastic adherence to a principle that has for its foundation, the future and everlasting good of the institution, and we can succeed in a larger way only as an association. To follow single track ideas and pursue methods in the distribution of our products that have long since been relegated to oblivion, cannot profit us much either in a monetary return for our investment or in gaining the important advancement of a wood that has come to be proclaimed one of the most useful, reliable and admired of all cabinet woods. The day of the individual interest, except in very rare instances, has passed. The magnitude of present-day commercial enterprises justifies the prediction that we must act in unison, and subordinate selfish inclinations and desires to the broader and bigger scheme of a centralization of interests of common purposes. In co-ordinate action the various units are not deprived of the privileges of individualism, nor do they surrender their individual rights to prerogatives. On the contrary, the greatest good to the greatest number must finally and eventually result without loss of a single essential element to the individual interest. Profit and progress are the big upstanding features of such harmonious blending of interests, and cannot be established upon an enduring foundation, in any other way.

Difficulties to be Removed

Our first concern should be to eliminate evils that have formerly imperiled our industry and will ever remain an obstacle in the way of successful co-operation unless they are eradicated. I have referred to alien factors through which hardwood lumber has heretofore been largely distributed to the consuming trade as having little or no real consideration for our welfare beyond a mere selfish design, and the acquisition of immediate pecuniary advantage. One of the greatest troubles we must overcome is the manipulation of our grades, a custom that has been destructive to our progress and insidiously destroying opportunities for advancement. It is an evil that is obviously a disadvantage to us and corrupts every one implicated in the transaction to say nothing of the misunderstanding as to the real value of our wood, in the minds of the consumers. For example, what must a manufacturer of furniture or interior house-trim think of our firsts and seconds birch if he invariably receives in every shipment a percentage of No. 1 common, whereas in mahogany, walnut and quartered oak, the woods that for the most part enter into competition with our birch, are sold on straight grades and accordingly show a much smaller percentage of waste when worked up into his finished product for the grade bought. How can we successfully answer his argument that the quality of the same grade in these competitive woods, is infinitely superior to birch, as determined by efficiency tests of the same grades that show conclusive proofs of his contention? This practice is as damaging to us as it is unethical, and truly we are aiming to erect ethical standards with equally as much consideration for the present welfare of our industry, as to manufacture our lumber uniformly well and prepare it for market requirements with an eye to securing highest favors. Not for today, but building so to speak for the future results both in increased volume and high values.

There is no practical solution of our problems that does not contemplate the factors of quality and service as being of primary importance. If we concede that quality is a permanent requisite, then we must proceed upon the basis of argument that anything that interferes with the quality of our birch lumber, must be strenuously opposed. We must not temporize with any element that seeks to interrupt any effort that is put forth to safeguard this extremely essential need. There can be no compromise between what is deemed to be right and that which is doubtful or positively wrong. Issues that are paramount and necessary to the well-being of our undertaking should be unequivocally sustained and defended.

Guaranteed birch—a new force in merchandising must therefore take on new significance, and it must be of such significance as will impress the users of this valuable wood with the firm determination of the manufacturers of the wood, to stand unalterably in opposition to any action that casts even one iota of stigma upon it. The stain of manipulation must be removed and it must be forever abolished. And the guaranteed article must have upon it, the stamp or seal of approval of the association first and then the individual manufacturer. Every measure of safety to insure against possible manipulation of qualities should manifest itself in a definite manner. To my mind, the proper branding of lumber should be the means of designating the quality and the name of the manufacturer and every piece of birch lumber that is shipped should have stamped upon its surface the grade, name of the manufacturer, trade mark of the association and such other marks of identification as it may be decided necessary after careful investigation of the needs of the situation. Appropriate recognition of this important matter should be given immediately and without delay, for in this day of branded and trade-marked goods, especially those of known quality, we have little occasion to defer our action for want of sufficient evidence that it is not timely. I submit, moreover, that manufacturers who are not now members of the association will soon be influenced to seek admission, so as to enjoy the benefits your trade mark will command.

Grade Manipulation a Serious Mistake

The disadvantages that have obstructed the way of the manufacturers of birch lumber, in their efforts to market their product must not be too lightly considered. I have touched upon one phase of the situation, the most serious, I believe, viz.: the middleman, who manipulates our grades and is without a sense of what is necessary to our well-being, future welfare, if indeed he is not altogether out of sympathy with us in our efforts to better our present and future conditions, and better them we must. Criticism of the manipulation of grades is equally as applicable to the manufacturer who indulges in this practice, although in his defence it may truthfully be said that he has in many instances felt compelled to adopt this method in self-defense, and much against his better judgment. To soften the impeachment, I shall characterize the act as being a common fault, occasioned by precedents long established in marketing hardwoods. A bad habit once recognized has little or no cause for existence, therefore, I trust we may all exchange this habit for a better one.

The trend of modern merchandising offers us every encouragement for standardizing and trade-marking our birch lumber. The product of but a limited area of the lumber producing localities, it is largely controlled by the members of this Association. Such action as is taken toward expanding the markets for birch would have a salutary effect upon the industry generally and eventually, a more universal recognition of the abolition of evils and substitution of improvements, will ensue. Certainly, whatever of practical advantage there may accrue to us, will be felt elsewhere wherever birch lumber is manufactured, and it is not unlikely that manufacturers in other localities or even of other hardwoods, will recognize the value of our example.

The intrinsic merits of birch are not widely known, therefore to expand healthfully, we must advertise our product and we must study the industrial consumer and acquire a closer acquaintance with and a broader knowledge of his requirements. Investigating specialists should be employed by us to personally demonstrate to manufacturers who use hardwood lumber, the merits of birch, and to impart information to the manufacturers pertaining to the grades best adapted to their uses. The first step taken to prevent grade manipulation and the standardization of our grades and the proper branding of them, we shall find a more responsive feeling prevalent between manufacturer and consumer. Certainly our efforts to reach a clearer understanding of the needs of the latter and an evidence of a desire to meet them in a practical way, cannot fail to elicit his applause and interest. Our ways will more nearly parallel each other and we shall have much that is in common and mutually beneficial.

In my contemplation of the needs that confront us, I have endeavored to view them fairly and without bias or prejudice. My own personal interests are not the subject of controversy, or even smaller consideration. I have subordinated and shall continue to subordinate selfish inclinations and tendencies to whatever action may be deemed best for all concerned; that will bring the greatest good to the greatest number of manufacturers of birch lumber. But, I must impress you with the need for prompt action. Delays are dangerous, especially so at this time when we seem to have reached a point where we are more hopeful than we have ever been, of realizing values for our products, more nearly commensurate with the costs of production and the intrinsic value of the wood. To prolong the time when suitable and necessary action be taken for the standardization of our grades, the branding of them and the expansion of our markets through efficient representation by capable specialists in the field to demonstrate the greater utility of birch, would jeopardize our prospects of main-

taining values we are hopeful of getting for our products and possibly lose to us advantages we now possess. Your association seems to me to be thoroughly united, equipped and prepared to direct this work. Now is the opportune time to take action, gentlemen. Why delay? Do this now.

Five Important Recommendations

I therefore urge upon you, for your speedy consideration, the following recommendations: First, the standardization of grades to conform to known requirements with liberal regard for these various needs. Second, the branding of every piece of lumber with an association trade-mark name of the manufacturer and grade if you consider it preferable, indicating the quality of the lumber, name of the manufacturer, and such other designing marks as may be deemed essential to our needs. There should be frequent inspections made at mills to see that uniformity in manufacture, grading and branding are being carried out. Third, the association inspection should be final and settlement arranged where branded lumber is not up to the brand guarantee. The association should be protected by a bond from every company licensed to use the brand. The bond from members will have the effect of making members keener to keep their manufacture and grades up to the standard, and bonded certificates of inspection issued with each shipment will have the same effect as an insurance policy to the buyer and guaranteeing him the grade purchased of pleasing the consumer and giving him confidence in the association. It will also constitute a compelling advertising argument for birch, which, backed by proper organization, will carry conviction to the consumer that his interests will be equally safeguarded and as zealously scrutinized. Fourth, suitable provision shall be made for securing necessary funds with which to conduct a practical campaign for acquiring accurate knowledge of the requirements of the consumer, through competent specialists. Through these efficiency experts, a closer intimacy between the manufacturer and consumer will eventuate and I have good reason to believe that much low grade birch, heretofore not considered useful for many purposes can be utilized advantageously, broadening the demand for the lower grades and thus enhancing their value. Moreover, larger requirements for birch lumber, of such magnitude as to render it impossible for any single manufacturer to handle them, can be successfully managed, through information imparted to the Promotion Bureau of the association by these experts or the traveling salesmen of the various manufacturers, by a satisfactory allotment of the orders to various members of the association, thus securing the members business of larger volume which might otherwise be diverted to competitive woods.

The possibilities and the opportunities for expansion cannot be estimated, but they present liberal inducements for a much wider consideration of the subject than we have previously given it. We have laid the foundation upon which to build our edifice securely and safely. It now remains for us to erect our structure with a view to making it enduring and lasting.

To Study European Needs for U. S. Lumber

The United States Bureau of Foreign and Domestic Commerce has announced the appointment of four special trade commissioners for the work of estimating the amounts of American lumber that will be needed in Europe for reconstruction purposes. These commissioners are: John R. Walker, of Washington, D.C.; Nelson C. Brown, of Syracuse, N.Y.; Roger E. Simmons, of Hagerstown, Md.; and A. H. Oxholm, of San Francisco. The investigation is to be financed jointly by the National Lumber Manufacturers' Association and the Bureau of Foreign and Domestic Commerce, the association paying the expenses of three of the commissioners.

The appointees are now preparing to visit every lumber-producing centre in the United States, the object being to get in touch with all lumber concerns that are interested in foreign trade. They will study at first hand the districts in Europe that will be in greatest need of lumber after peace is restored, ascertain the kind of lumber that will be demanded, and will estimate the nature of the competition that will be encountered. It is thought that the investigation will require two years.

Commissioner Walker, in addition to practical experience in the lumber industry and considerable actual exporting experience, has appeared before the Interstate Commerce Commission in behalf of every branch of the lumber business. Commissioner Brown has the advantage of having taken part in a previous investigation of the lumber markets of Europe in a private capacity. He has been connected recently with Syracuse University and the United States Forest Service, and is chairman of the forest committee of the Empire State Forest Products Association, and chairman of the forest utilization committee of the New York State Forestry Association. Commissioner Simmons began in the lumber business as a partner in a Maryland lumber company. He was connected with the United States Forest Service for a number of years, and recently completed an investigation of the lumber markets of South America in behalf of the Bureau of Foreign and Domestic Commerce. Commissioner Oxholm is a native of Norway and had a thorough knowledge of the Baltic lumber industry before going to the United States. Especially valuable experience was gained as assistant manager of the largest lumber-importing concern in Spain.

Mrs. Sullivan, an active partner of Frank T. Sullivan, Buffalo, N.Y., in the lumber business, died recently at Buffalo. Mrs. Sullivan had been in the South on a business trip and on her return to Buffalo contracted grip, which turned to pneumonia. Mrs. Sullivan was widely known in Canada.

In furtherance of its campaign for mobilizing the lumber industry of the United States to meet the war demands of the nation, the Southern Pine Association has suggested to the Federal Shipping Board that representatives of the board and of the lumber interests meet at New Orleans at an early date. It is expected that if such a conference is held definite steps will be taken for the organization of corporations to co-operate with the government in providing adequate facilities for the speedy construction of a large fleet of wooden ships for the mercantile trade.

"Rite-Grade" Campaign as Vigorous as Ever

The production of "Rite-Grade" shingles is to be carried on just as extensively as ever this year, but instead of the "Rite-Grade" being a brand, it is to be the official inspection mark of the association. The private brands of manufacturers subscribing to the "Rite-Grade" campaign will contain the "Rite-Grade" inspection mark incorporated is their brands.

Mrs. Tim-Ber: "I'm hoping they'll let the Forest Family help along this 'Thrift' campaign that's advertised."

Mr. Tim-Ber: "Good idea! We've been giving the Fire Fiend more than six million dollars a year. The Governments can bank that money if they say the word."

News Item:—"Forest losses in Canada through preventable fires average six million dollars annually. This enormous damage can be stopped by modern systems of forest protection."

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Cheese Box Veneer

Wanted a quantity of cheese box veneer and heading, standard stock. C. B. Moses, Carp, Ont. 8-11

For Sale-Lumber

Lumber For Sale

300,000 ft. B.M. 1 x 4 and up Clear and No. 1 Spruce.
400,000 ft. B.M. 2 x 4 to 2 x 10 Spruce.
Piled widths and lengths separate.

GEO. C. GOODFELLOW,
c Montreal, Que.

Dry Hardwood Lumber For Sale

325,000 ft. 4/4 No. 2 Com. and Bet. Maple.
35,000 ft. 4/4 No. 3 Common Maple.
35,000 ft. 4/4 No. 2 Com. and Bet. Birch.
50,000 ft. 4/4 No. 3 Common Birch.

WILSON BROS., LIMITED,
8-8 Collingwood, Ont.

For Sale-Machinery

Portable Mill

Portable sawmill for sale, in first-class condition, with double edger. Apply Box 552, Canada Lumberman, Toronto, Ont. 7-10

Alligator For Sale

West & Peachy make. In good condition. The Peterborough Lumber Company, Limited, Peterborough, Ont. 7-8

Saw Mill Machinery For Sale

1 100-h.p. boiler with Dutch oven, latest type, and all fixtures; 1 14 x 14 Robb Engine, latest type, with all fixtures; 1 sawmill frame with rope feed; 1 edger, self-feed; 1 lath machine with bolter, etc.; 1 planer and matcher; 1 re-saw, together with a quantity of saws, shafting, belting, live rollers, etc. All of the above, in A-1 condition, will be sold at a bargain, and can be seen at any time by appointment. H. W. Woods, Welsford, N.B. 7-10

Shingle Mill For Sale

One new upright shingle mill with edger for sale. Apply to A. Duquette, Papineauville, P.Q. 8-11

For Sale

For saw, shingle and lath mill machinery write the G. Walter Green Co., Limited, Peterboro, Ont. We have a nearly new 50-brake H.P. Case engine on skids. 6 9

For Sale

Morgen Johnson No. 24 slab resaw band wheels, 50 in. diameter, 7½ in. face, saws 8 in. wide, 25 ft. 3 in. long, 18 gauge. Used very little. Write Box 565, Canada Lumberman, Toronto, Ont. 8-8

Wanted-Machinery

Automatic Sharpener

Wanted second-hand automatic sharpener for circular saws, rip up to 60 in.; crosscut to 40 in. Must be in good working order. State lowest cash price. Box 548, Canada Lumberman, Toronto, Ont. 7-8

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

BAND SAWYER wants position. Right or left hand. Single or double cut. First-class references. Box 2, Canada Lumberman, 42 St. Sacrement St., Montreal. 7-10

LATH MILL MAN wants position to run lath mill by the day; will go anywhere. 12 years' experience. References. Box 537, Canada Lumberman, Toronto, Ont. 6-8

LICENSED ENGINEER wants position on locomotive or donkey engine for logging or loading operations. Long experience. Now employed in B. C. but wants position in Ontario or Quebec. Box 561, Canada Lumberman, Toronto, Ont. 8-11

FIRST CLASS BAND SAWYER would like position with some Canadian firm. Am 31 years old, single, had 5 years' experience and will guarantee satisfaction or no pay. Prefer right hand rig. References. Address O. D. Granum. Amery, Wis. 9-9

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

OPEN FOR ENGAGEMENT May the 1st, as Superintendent of Lumber operation, or as Inspector or Salesman. A thorough knowledge of lumber operations in every stage, including office work; extensive experience in handling men. Best of references. Box 562, Canada Lumberman and Woodworker. Toronto, Ont. 8-8

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

FOREMAN FOR LUMBER YARD wanted. State age and experience. Permanent position. Box 554, Canada Lumberman, Toronto, Ont. 8-8

WANTED—EXPERIENCED FILER for round saws, including shingle saws; one capable of fitting and hammering. Please reply, giving qualifications, to Box 551, Canada Lumberman, Toronto. 7-8

WANTED—MECHANIC, experienced in sawmill and pulp mill work; one capable of handling gang of millwrights for repairs and construction. Apply, giving qualifications and experience, to Box 550, Canada Lumberman, Toronto. 7-8

Business Chances

Sawing Contract

Wanted- Man with Portable Sawmill, to cut, at Haliburton town, about one million feet of lumber, mostly hemlock. Fesserton Timber Co., Ltd., 15 Toronto Street, Toronto. 7-8

For Sale

Half interest in, or all of, the white, red, and jack pine, spruce, and cedar timber (estimated 20 million) on well-watered Township. Can be operated two years without sleigh haul. Apply Howard Gover, Coldwater, Ont. 8-11

Sawmill To Rent

Will rent water power sawmill with grist mill in connection therewith. Profits average over $5,000 a year for the last ten years. $3,000 will finance.

E. E. WELDON, Solicitor,
8-11 Lindsay, Ont.

Mill and Yard For Sale

A-1 Planing Mill and Lumber Yard in the busiest city in southwestern Ontario. Best of railway facilities; also by boat within ¼ mile of premises. Good reasons for selling. Act quickly. Address Box 560, Canada Lumberman, Toronto, Ont. 8-8

Mill Plant and Limits For Sale

11 Miles Limits on Mud Lake, Gatineau Valley, containing Basswood, Spruce, Fir, Pine, Cedar, Birch, Maple and Pulpwood.

New Waterous 8 ft. Improved Double Cut Band Mill complete. Steam Alligator, Boats, Sleighs, Wagons, Harness, etc. For further particulars apply to

A. W. STEVENSON,
P. O. Box 2324
8-t.f. Montreal, Que.

Miscellaneous

For Sale

One 10 station stationary Eco Magneto watchman's clock complete, practically new; suitable for sawmill or factory. Will sell cheap. Charles H. Nadeau, Port Daniel, East P. Que. 8-11

For Sale

24 B. C. Timber licenses (perpetual) on inland passage to Prince Rupert. Also properties at Chilliwack Lake and Quatsino Sound. All good logging propositions.

CARL BLOCK,
5-10 Peoria, Ill.

Township Foster Timber Limit For Sale

License Renewable. No time limit; 36 sq. miles on North Shore. Abundance of excellent timber throughout its entire area. Pine, Birch, Hemlock, Spruce, Cedar Ties, Poles and Pulpwood. Roads all cut and ready for operation. Close to two railroads. Splendid chance for portable mill operation. For particulars apply R. B., Box 544, Canada Lumberman, Toronto, Ont. 6-9

Birch Stumpage Wanted

We are open to consider a large block of Quebec birch stumpage; must be good operating chance and near railway. Apply Box 546, Canada Lumberman, Toronto, Ont. 7-10

Auction Sale of Timber License

Under and by virtue of the powers contained in a certain hypothecation which will be produced at the time of sale and under and by virtue of all other rights and powers thereunto enabling, there will be offered for sale by public auction on Wednesday, the 2nd day of May, 1917, at the hour of 2 o'clock in the afternoon, by C. M. Henderson & Co., Auctioneers, at their premises, 128 King Street East, in the City of Toronto, the following property, namely:—

All that certain license to cut timber in and upon certain portions of the Township of Proudfoot, which license is known as Number 286 of the Season 1916-1917, and being Berth Number 3 in the said Township, as set forth and described in the said license, saving and excepting thereout all such lots or parcels as are thereby excepted.

The limit for which this license is held is said to be favorably situated and easy of access. There are said to be considerable quantities of valuable hardwood upon the limit, over 3,000,000 feet of birch and over 800,000 feet of maple, being stated to be suitable for manufacture into lumber, besides upwards of 100,000 cords of hardwood.

Terms—Ten per cent. of the purchase money to be paid down at the time of sale and the balance to be paid within thirty days, without interest.

The License is offered for sale subject to all the conditions and regulations of the Department of Lands, Forests & Mines of Ontario, affecting the same.

The property will be offered for sale subject to a reserved bid.

Further particulars, terms and conditions of sale will be made known at the time of sale or upon application to Johnston, McKay, Dods & Grant, Traders Bank Building, Toronto, Solicitors for the Vendors.

Dated at Toronto this 12th day of March, 1917. 6-9

War Creating Large Markets in United States

United States lumbermen are pretty generally of the opinion that war conditions promise a large volume of business for the lumber industry. The point upon which attention has been chiefly focused of late is the wooden ship fleet, with 1,000 projected wooden ships, each of which would require from 1,000,000 to 1,250,000 feet of lumber for its construction.

This is far from being all, however, and probably will not in the final test be even the most important use of lumber. The Y.M.C.A. of the nation has already announced that it has appropriated $3,000,000 with which to build club houses for soldiers at the concentration camps, or manoeuver points, and the club houses will be constructed of wood.

The government also will soon arrange, it is understood, to build permanent quarters at various points for the housing of the new universal service army. If these cantonments are built as is being done now for the "regulars" in the south, there will be enormous quantities of lumber needed to fill the requirements. The El Paso

district, for instance, is to have cantonments for troops stationed there, if a large number are to remain in that part of the country, and these will be of wood, along the same general lines as the present mess houses, of which there is one for each company of troops.

Save Your Ashes

One of the effects of the war in Europe has been to increase the demand for potash in this country, the supply having been considerably reduced owing to the shutting off of importations. One of the principal methods resorted to for the relief of this situation has been a return to the old-time method of producing potash by leaching wood ashes, and not a small part of the present supply of potash is obtained in this way.

As a result of this return to old-time methods hardwood manufacturers have been treated to the rather unusual experience of having occasional visitors calling at their plants seeking to purchase their ashes.

Unfortunately, the business of selling ashes has fallen into rather bad odor among many of the hardwood men, owing to the unscrupulous tactics of one or two purchasers of ashes. There are, however, a number of chemical companies of unquestionable reputation and reliability who are finding it profitable to buy up these ashes for use in their plants.

In recognition of the importance of this matter the United States Geological Survey has prepared a list of potash and pearlash producers, which will be sent by the Survey to anyone who applies for it.—Southern Lumberman.

Will Make Temporary Rate Advance

It is reported from Washington, D.C., that the Interstate Commerce Commission will accept the proposition submitted by the railroads' representative that the proposed general rate increase of 15 per cent. be provided in tariffs filed June 1, to be effective thirty days later, without suspension by the commission, upon the understanding that later on if the commission, decides an emergency no longer exists and orders reduction of rates the railroads will agree in advance to accept them without hearing or contest.

PHILIP T. COOLIDGE
FORESTER

Technical training and ten years' experience. **Timber Estimating and Mapping. Supervision of Lumbering Contracts. Surveying. Forest Planting.**

Stetson Building, 31 Central Street
BANGOR, MAINE

Union Lumber Co.
Limited

White Pine
Red Pine
Spruce
Red and Jack Pine
Lath

Union Lumber Co., Limited
701 Dominion Bank Building
TORONTO, CANADA

Tender for Timber Limits, Mill and Equipment

The following valuable property composing a going lumber manufacturing plant, is offered for sale in order that an Estate may be closed.

125 square miles, more or less, of timber limits under license from Ontario Government, conditions of which may be obtained from the Department of Lands, Forests, and Mines, which permits cutting of all kinds of trees; composed of Townships of Goschen, Carlyle, 67 and north half of Humbolt.

200 acres of land at mouth of river, on which are situated water-power sawmill, and mill dam, box factory, yard with docks and tramways, store, boarding house, blacksmith shop, machine shop, storehouses, stables, and about twenty houses for families. A steel tug eighty feet long; a steam launch and tow barge. Also camp equipment for two camps, including sleighs, horses, and all necessary rigging.

The territory is well watered and the river improved with dams, slides, etc. Blue prints may be obtained at the office of the undersigned.

Tenders for the purchase of the foregoing, endorsed, "Tender for timber limits, etc.," addressed to the undersigned, will be received up to Thursday, 28th June, 1917.

Terms: Certified cheque, payable to the undersigned, for 10 per cent. of the amount offered, must accompany the tender; 15 per cent. to be payable on the 1st of August, 1917; 25 per cent. on the 1st of November, 1917; 25 per cent. on the 1st of February, 1918, and 25 per cent. on the 1st of August, 1918.

Interest at 6 per cent. per annum from date of acceptance of offer to date each payment is made.

Cheques of unsuccessful tenderers will be promptly returned. The right is reserved to reject any or all proposals.

National Trust Company, Limited
20 King Street East, Toronto

NATIONAL RAILWAY MOTOR CARS

Standard Section Motor Car

An exceptionally practical car for use by lumber companies and short line railways. Strictly modern in every respect. Free running 4 H. P. reversible motor—starts, stops or reverses like an auto by simply shifting a lever, can be thrown into low or high speed or neutral as desired; sliding gear transmission, two speeds forward and two backward; sliding base clutch so car can be started slowly without any sudden jerk or jar—on low gear will pull several trailers, or on high, speed up any desired speed. Frame made of hardwood, reinforced with angle irons, all bolted—not a nail or a screw used in entire car.

Price $160
(F.O.B. Factory)

We also make a full line of other motor cars, from light 2 H.P. speeders to heavy 12 H. P. 4 cycle Passenger Car or tractors. Send for our 1917 motor car catalog illustrating the full line.

NORTHWESTERN MOTOR CO., 1500 SPRING ST. Eau Claire, Wis.

Review of Current Trade Conditions

Ontario

Further improvement is reported by wholesalers and manufacturers in connection with the Ontario lumber trade. Not only are enquiries much more plentiful than they were a fornight ago, but shipments are better. The railroad companies have been able to give improved service as compared with that of the first two months of the present year. Embargoes still exist against Toronto upon the C.P.R. and G.T.R., but it is possible to obtain permits for shipments. The embargo on the Canadian Northern by connecting lines is still in force except east of Toronto. Grand Trunk embargoes have been lifted to a certain extent except east of Toronto. Toronto wholesalers report that they are able to make shipments through to the Eastern States to points which they were unable to serve a month or so ago. Permits for shipment are being accepted by the railway companies in practically all cases where the purchaser can establish the fact that he needs the stock for actual consumption or filling of orders. When stock is purchased as a speculation, however, the railroad companies are refusing to handle it.

Northern Ontario mills are expecting to start their sawing operations at an early date. Many of them will be running during the last week of April, starting up anywhere from the 20th to the 30th of the month. Mills which have stocks of logs held over, or can obtain their stocks by rail will commence sawing as soon as possible. Those depending upon the drive for their logs are also expecting to start at an early date, as the prospects are that the drive will commence almost any day now.

Stocks of dry lumber at mill points are practically out of existence, so far as the sizes in most demand are concerned. Northern manufacturers generally are talking of higher prices for their 1917 cut, the advance referred to being $7 to $8 per thousand feet on the average. Manufacturers and wholesalers report that orders and shipments are far more plentiful. The retail trade throughout the province is showing signs of improvement on account of a fairly general increase in the building demand. The same applies to the retail trade in the Northern States, and substantial shipments of Canadian stocks are being made to the important border cities across the line. The scarcity of stocks in the Northern States is enabling Canadian dealers to enter markets which they were not able to touch formerly.

Renewed activity is reported in connection with the shell box trade. The Imperial Munitions Board let contracts during the second week of April for between 700,000 and 800,000 Bethlehem boxes. These will require approximately 10,000,000 feet of 1-in. spruce or pine. The diaphragmns of the boxes will call for veneers or solid hardwoods. Estimated in solid hardwoods, this will take approximately 2,000,000 feet of 1-in. stocks. In veneers it would be about 6,000,000 feet.

The Toronto Harbor Commission have also come upon the market with a call for tenders for about 6,000,000 feet of hemlock and British Columbia fir timbers, largely 10 in. x 10 in., various lengths. This stock is required immediately.

The hardwood trade is very strong. Enquiries are much more numerous than the manufacturers and wholesalers are able to take care of. Moreover, they are for regular lines of manufacturing, as well as for shell box material and other war uses. Furniture and piano factories are all busy, and are trying to lay in stocks for their 1917 requirements. They have all commenced to realize that they must pay higher prices, and are, accordingly, coming upon the market more freely. Manufacturers and wholesalers of hardwoods report that they are unable to take care of the situation to-day, so far as dry stock is concerned, and that they hardly know how to quote enquiries for new stock. Prices which they considered very high a short time ago are now general, and it looks as though to-day's prices will seem low before many weeks. Some lines which were purchased early in January are now costing about 30 per cent. more than they did at that time. The trade, therefore, are hesitating about contracting to sell extensive quantities for future delivery.

The retail trade at Toronto shows distinct signs of improvement, an increase having developed in the volume of the building business. Apparently there is now a shortage of houses in Toronto, and a demand is developing for new homes. The building permits for the first three months of 1917 amount in value to $1,383,105. For the corresponding three months of 1916 the total was $662,789. The increase has been distributed fairly well throughout January, February, and March, January showing $394,880, as compared with $198,590 a year ago; February $573,517, as compared with $191,509, and March showing $414,708, as compared with $272,690.

Conditions are showing some improvement at Ottawa, chiefly on account of a better car supply for lumber shipments. Shippers have been able to get out many orders that had been collecting on their books. Operators in the Ottawa Valley report that the output during the winter has been fairly extensive and that an early drive is expected. All the Ottawa mills are looking forward to an active season. The export trade from Ottawa is quiet, on account of the import restrictions imposed by Great Britain. Shell box making continues very active, and is using up a large quantity of lumber. The entry of the United States into the European war is expected to increase the demand for Canadian lumber for shipbuilding.

Eastern Canada

There is nothing new of importance to report in connection with the lumber trade at Montreal, conditions being similar to those of a forrtnight ago, and being characterized chiefly by difficulties arising out of railroad embargoes and out of the British import restrictions. Orders are plentiful, both at mill points and with wholesalers, but the car shortage prevents them from being filled unless they are for munition purposes. There is a good demand for shell box lumber. Prices in all lines are firm. Building permits at Montreal are increasing in an encouraging manner.

Great strength is reported in the market for Eastern spruce at Boston. The usual base quotation on spruce frames is now $36 for rail shipments, Boston rate, which is 50 per cent. above the price of a year ago. The volume of business is good. The demand of the wood pulp mills, together with the present high prices, make it look as though there will be a scarcity of Eastern spruce for normal building operations this summer. Random quotations are as follows: 2x3, 2x4, 2x5, 2x6, and 2x7, $30 to $31; 2x8, $33 to $34; 2x10, $35 to $36; 2x12, $36 to $37. The hemlock market at Boston is also firm, particularly for boards. Mill stocks of dry boards have been reduced, and quotations are reported at $28 on clipped boards 10, 12, 14, and 16 feet long. There is a fairly good enquiry for all lines of hardwood at Boston. Quotations for ordinary mill deliveries on firsts and seconds 1-inch are: Basswood, $48 to $50; maple, $50 to $52; plain oak, $63 to $66; quartered oak, $88 to $91; red birch, $66 to $68; sap birch, $56 to $58; white ash, $58 to $61.

Spruce prices at Boston are so high that much of the smaller building has been cut out. Stocks are scarce, however, and dealers are usually able to dispose of them at current prices, which are expected to remain firm at least until the middle of May, when the larger mills commence operating. Lath are very strong. There is a good demand for high-grade shingles, but low grades are very dull.

Continued firmness is reported for shingles at Boston, the demand being extremely good. Retailers are paying a little more than the regular market prices for quick delivery. White cedar extras are bringing $4.50 to $4.75 and clears $4.15 to $4.40. Lath are very strong and are selling rapidly. Some wholesalers quote $5.50 for 1⅝ in. and others are asking $5.25. For 1½ in. the range is $4.25 to $4.50, with the latter figure prevailing.

United States

The end of the fear of a railroad strike and the lightening to a considerable degree of the car shortage, have done much for the lumber industry in the past two weeks. Orders in the Southern field have been booming, being considerably above normal, while production and shipments have been about the same proportion below normal. The filling of orders will soon change this situation, however, it is expected. In the West the congestion is now so great as to be almost prohibitive of the acceptance of new business, and the prospect of a 15 per cent. raise in freight rates is a source of anxiety to manufacturers. With their yards bulging with unshipped orders, operators are unable to realize financially on lumber manufactured and sold months ago, but still awaiting delivery. The situation is reported serious in some plants.

The change in freight rates will give Southern yellow pine an advantage of about 4 cents per hundred pounds over Western fir in the markets of the Middle West, and, owing to the long haul, such a readjustment of freights as has been suggested might disrupt extensive plans of market extension now under consideration in the West.

The export trade during the month of March was about up to the average since the outbreak of the war. On the Atlantic Coast, however, business suffered, on account of the British import prohibition. Imports of softwoods have been cut down and reports indicate that this condition will continue. Reports from Great Britain state that the Canadian forestry battalions in England are cutting "home timber" at the rate of 20,000,000 feet per month. The Southern pine

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

situation is still encouraging, orders continuing to set new records. New lists that have been issued show advances in practically all items. The spring trade is showing a good demand for lumber from all parts of the country. The demand for hemlock is improving all the time, and prices are firm, with a tendency to advance. Improvement is reported in connection with the lower grades of spruce for box manufacturing. Markets for hemlock and spruce are active, both east and west.

Many manufacturers of Douglas fir are remaining out of the market on account of the congestion of orders already on hand and the continued difficulty in making shipment on account of car shortage. Redwood manufacturers report that they are able to obtain cars only for 50 per cent. of the stock on demand, and orders are, therefore, piling up all the time. Most redwood mills are cutting to full capacity, and prices are firm. The demand for all grades of white pine continues strong, and prices are very firm. In most of the Eastern markets the supply of white pine is very low. Northern manufacturers are receiving enquiries in excess of their ability to furnish stock. Hardwood markets continue strong, and are characterized by an increasing scarcity of dry stocks in all hands, from the consumer to the manufacturer. Many shipping embargoes have been raised, and manufacturers are endeavoring to forward shipments wherever it is possible to obtain cars. It is interesting to note that the hardwood trade is enjoying an excellent demand for veneers and built-up wood of every description. There is also an active demand for the higher grades of all hardwoods suitable for interior finish and for flooring, while the lower grades are in good demand by box manufacturers. The entry of the United States into the war promises to increase the demand, as wagon and vehicle manufacturers and all kinds of furniture factories will be requiring supplies to turn out orders for the army and navy. There will also undoubtedly be a heavy demand for hardwoods suitable for handles for trenching tools.

Great Britain

No change is reported in connection with the spot market in Great Britain. No over-side deliveries are reported at London, and deliveries from stock remain about at their recent level. Home supplies are gradually coming in to assist in meeting the demand until fresh stocks begin to arrive from abroad. The advisory committee recently appointed to assist the Timber Controller are getting to work, and it is expected that their decisions will help in restoring general trade confidence. Prices at London continue steady and firm.

At Liverpool spot stocks of all kinds of wood are very low. Importers are beginning to consider the possible relief that will be obtained by the arrival of supplies on sailers in the absence of steamer tonnage. Combined war and marine risks on sailers are now quoted at £31 per cent., which makes spot stocks much more valuable than formerly. The proclamation prohibiting import of all kinds of wood is now in full operation. Small parcels of spruce deals by liners continue to arrive, and are eagerly picked up on the water at current prices. The demand for spruce deals is very good, and the consumption continues on an extensive basis. Present conidtions indicate that case makers will have difficulty in securing stocks after the end of May. Values of birch logs and planks have advanced still further, and are expected to continue in this way on account of the greater restrictions of imports. The demand for consumption continues steady, and holders of stocks are not showing any anxiety to part with them. Rates of freight to Great Britain are advancing every day. Insurance rates are at a high level, and it appears to be a very difficult thing for importers to face such figures while prices are regulated by the government.

At Manchester the timber trade is going along steadily. Hardwoods continue to make record prices, and the limit is difficult to foretell. At Glasgow the trade has been fairly active, almost resembling a genuine boom. This has been due, however, to the recent government restrictions of imports, which produced something in the way of a scramble to replenish stocks as far as possible from those already on the market. Apparently large lines changed hands for this reason.

The Union Lumber Company, Ltd., Dominion Bank Building, Toronto, report that they recently obtained an order for 400,000 feet of 3-in. deals for shipment to South Africa.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Stocks Sold Ahead

St. John, N.B., April 7.—(Special to the Canada Lumberman.)—Lumber manufacturers at St. John and other Southern New Brunswick points report that all their season's cut for 1917 is sold ahead. The enquiry for stock is extremely heavy. Every day the manufacturers receive visits from several buyers who are trying to pick up stocks. The same situation is reported to a great extent also by Quebec and Nova Scotia mills. A large number of the Quebec mills are turning their entire cut of logs into pulpwood, and will not saw any lumber this year.

There is little to say in connection with the trade with Great Britain. If the British Government were not controlling prices of all wood goods imported the value of spruce deals would be much higher, as stocks are extremely low, both in the Maritime Provinces and in Great Britain. Trade with the United States was never so good as it is to-day. The war has had very little dampening effect on the United States trade; in fact, it looks as though the demand will increase instead of diminish. Prices are advancing steadily, and, with only a normal cut of logs into long lumber, it does not look as though there is any possibility of a decline. The pulp mills are an important factor in the present situation, and probably will continue so for some time to come. Mills at St. John are beginning their season's operations. It looks at present as though the cut on the St. John River for the St. John mills will not be nearly so great as it was last year—probably in the neighborhood of 10,000,000 feet less. The deep snows of the past winter, coupled with the scarcity of pulp, have caused a shortage of greater proportions than was anticipated. Logs have also cost 10 per cent. more to produce than they did a year ago. All the mills at St. John have just granted 35c per day increase to each man employed.

Conditions for driving look promising, as the snow is still deep and no break-up has yet occurred. In some parts of Quebec hauling is still in progress, but for the most part everyone is waiting for the drive.

Prices for bank logs are extremely high, greater by 20 per cent. than ever before, and there are very few to offer; in fact, the farmers have not hauled within 75 per cent. of their usual cut. The mills are now completely cleared of all merchantable and refuse stocks, a situation which has not existed for many years past.

Ottawa Trade Showing More Activity

Ottawa, Ont., April 6.—(Special to Canada Lumberman.)—A more satisfactory condition has developed in Ottawa within the last two weeks in regard to the car supply for lumber shipments. The shortage has been materially relieved, and enough cars have been available to enable shippers to get many orders away. A temporary pause seems to have been made in the recent stiffening of prices, no change being reported during the past two weeks.

Logging operations in the Ottawa Valley have been fairly extensive during the winter, and lumbermen are hoping for an early season in order to get the drives down. The snow and ice have already largely disappeared, and a continuance of present mild weather would be welcomed. All the mills in this district are anticipating an active season. A listless condition pervades the export trade, and no revival of activity, so far as exports to Great Britain are concerned, is looked for, owing to the restriction of imports recently announced by the British Government.

An almost unprecedented situation prevails in Ottawa in regard to the local lumber demand, the enquiry for lumber being comparatively nil. So few buildings are being erected that the retailers report only small orders. Shell box making is still brisk among retailers.

The stimulus experienced in American shipbuilding caused by the entrance of the United States into the war will create a demand for Canadian lumber, so lumbermen are inclined to think. While the United States has extensive lumber supplies available, the excessive demand is expected to place many orders in the hands of dealers throughout the Ottawa district.

Montreal Trade in Great Need of Cars

Montreal, April 10.—(Special to the Canada Lumberman.)—The lumber trade position here is practically unchanged. As the embargoes are the disturbing elements, directly there is an appreciable alleviation of this situation trade will no doubt materially improve. Some relief is looked for when navigation opens, as firms will no longer have to rely entirely on the railways. There is no alteration in the general embargo position, which is so serious that the Montreal Lumber Association have decided to make representations to the railway commis-

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WOODSTOCK, N.B.

sioners with a view of seeing whether any remedy can be obtained. Plenty of orders are on the books of wholesalers and also at the mills, but the cargo shortage and the embargoes bar the way to these orders being filled, except, of course, for munition purposes. The demand for shell and other box lumber is very satisfactory. Prices are very firm.

The Imperial Government have placed an order with H. Mathieu & Co., sash and door manufacturers, for 300,000 shooks and a smaller order with Henry Morgan & Co. The latter are now completing their first order. It is understood that the specifications, which were unusually severe, have been modified.

The building permits continue to show improvement. For last month the value was $343,460, a gain of $100,115; while for the first quarter of the year the total was $995,920, an increase of $412,500. Much of the work will be delayed for some time, the embargoes preventing the supplies of material coming to the city.

The exporters are still without much information as to the outlook. The steamship companies are waiting on the government before making any move of importance. A little space has been booked, but one firm who had tentatively obtained accommodation have had the contract cancelled. It is believed that the license system outlined in the last issue of the Canada Lumberman will involve a considerable amount of trouble, and that the difficulties of this section of the trade, already great, will be increased.

Boston Prices Strong—Stocks Light

Boston, Mass, April 4.—(Special to the Canada Lumberman.)—Spruce market conditions at Boston are very uncertain at present. Prices are so high that a great deal of the smaller building has been choked off. Stocks of spruce lumber, however, are scarce, and most dealers are having no trouble in disposing of anything they have at the current high prices. It seems practically certain that this market will continue as it is until the middle of May at least. The larger mills will start operating in May, and new stocks will then become a factor in the market. Lath continue very strong. Several manufacturers are talking of turning all their slabs into pulpwood and not making any lath at all. If they do this, the price of lath is certain to continue firm. High-grade shingles are in good demand, but the low grades are very difficult to move, as usual.

A prominent firm of Boston wholesalers report in regard to market conditions as follows: "The present market situation is really anybody's guess. The uncertainty of the present conditions in all lines of trade is such that it is very difficult for anyone to analyze it satisfactorily. In our opinion, the present prices should hold for some time. Stocks on hand are very light, and for immediate shipment one can obtain almost any price for the ordinary sizes in spruce and pine and for dry hemlock boards. In addition to this, the pulp mills have taken a very large amount of spruce logs. There is also a greatly curtailed cut by the winter mills. Although the winter has been long, cold, and steady, the depth of snow in some sections forced an early cessation of log operations so that the supply of logs for the coming season is quite small. The cost of operating in the woods this winter has been very greatly increased, owing to the advance in wages for labor and the increased cost of food supplies. In addition to these features there is the freight rate situation to be considered. Water freights are very high, and the proposed increase to be granted to the railroads will make the rail freights still higher. For all these reasons present high prices are likely to continue.

"On the other hand, when prices of commodities are very high the demand necessarily decreases, and results in a curtailment of building operations, both for new constructions and additions. It is hard to say when this decreased demand will reach the level where the smaller supply will be sufficient to take care of it, but the increased cost of getting materials to market must always be considered."

New York Market Report

Simpson, Clapp & Co., New York, N.Y., report under date of April 2 as follows: The market continues firm, and prevailing high prices—the highest in the history of the business—are being maintained.

Spruce timber—For vessel delivery here prices range from $30 to $35 per M., according to schedule.

Spruce boards—For a good schedule running, say, 6 inches and up in width and 10 feet and up in length, $28 to $30 per M. feet is being asked. For a narrow run prices are correspondingly less.

Hemlock—According to schedule, $25 to $28 is being quoted for a regular two-inch stock schedule, running even lengths.

Spruce lath—What few vessel arrivals have reached here since our last report we understand have been sold at $5.50 per M., and $5.75 is now being asked, but as yet no sales have been made at this figure to our knowledge.

If present arrangements are carried out, the St. Maurice Forest Protective Association will commence operations with an aeroplane in May or June.

Things a Retailer Should Know and Remember

I have read with a great deal of interest the address of C. E. Walrath at the Nebraska convention on the subject, "Things You Should Know and Remember," which was one of the clearest expositions of the cost of doing business that I have yet seen in print. Mr. Walrath's age and experience in the retail business carries a weight of authority.

I have held for a long time that the solution of local price-cutting is a more general knowledge of what it costs the dealers to do business, and would solve the problem of agreeing on prices. Most of us at some time in our yard experience have thought that if we could only get the other fellows to agree on a price list to sell by, and stick to it, we would have easy sailing to the port of Good Profits. This has always been one of the illusions of the trade, and there are few dealers but who have experienced the fallacy of stopping price-cutting by a formal agreement with competitors not to do it. But, as I have often said in my articles, when two competitors in the same town know for sure what it costs them to do business, they each know that there is a line of cost which affects them equally, and to go below it means actual loss. 'Tis true, there will be some cutting below that, but each knows how far the other can go without loss.

There were several things in Mr. Walrath's address worthy of quoting, for the purpose of accentuating their importance.

"Every business," he said, "has its overhead, but many do not consider it, and in this they are doing their business, themselves, and their neighbors serious injustice." And, again:

"Very few independent dealers charge up enough against their business for general management. Many pursue the policy of drawing each month what is necessary to meet their living expenses. Others draw a stipulated salary each month, but it is not near what they would have to pay to procure the services of a man competent to handle the business. When a dealer does not pursue the policy of charging his business with an adequate amount for this management, he not only is fooling himself, but he places his competitor at a disadvantage."

Now, this is exactly the ruling policy of the old-time idea. Beating the competitor by every legitimate means was considered the thing to do, and probably it is yet with many dealers who are not changed by a better understanding of doing business. However they may think so, they cannot escape the workings of the law of action and reaction. In beating your competitor in this way you also beat yourself. There is no escaping it. If you think because you own your yard you can take advantage of a competitor who does not, by violating the laws of good business principles, you deceive yourself and suffer the penalty of a loss. In this respect independent dealers should consider their business as belonging to another party, and conduct it in this attitude, charging up everything against it that would be charged were he acting only as the manager.

They Cannot See the Logic

I know it is difficult for many dealers to understand the business principle of charging against the cost the same amount of salary for themselves which they would have to pay another man to run the business for them. They generally think of this as being unnecessary for the reason that their profits constitute their salary. But in not charging a full salary up to the cost they are losers by that much, because they give it away through the process of figuring on a lower basis of cost than they would if they estimated the cost correctly. Another thing is the cost item of depreciation of equipment. Mr. Walrath said of it:

"This is an item that is generally overlooked. In case it is included, very few depreciate and charge off enough. Each year's business should be made to assume all the expense which has been accumulated because of repairs made to the plant, together with 10 per cent. of the original cost of the equipment. This may be thought by many to be too high, but few plants ten years from to-day should be inventoried, as the business during that time should have been wiped out entirely."

Now, I venture to say that the majority of individual dealers are in the habit of ignoring this item of depreciation, and it's only within late years that very many dealers have taken it into account at all. The fact is, if all that we recognize now, as items that should go into the cost of doing business, had been figured as such in former years, there would have been a much less showing of profit than there was. Another item discussed was "Lost Accounts." Some of our more careful and up-to-date dealers have succeeded in reducing this to a mere nothing at all. At least, they claim they have. But these are so few they form a very small percentage of the whole. The average country dealer carries another yard on his books, and as these accounts string along from one month's time to a year and more, there are bound to be some of them that will slip past him, for the reason that certain contingencies arise that he don't figure on. It has been said that a sale on account is a loss until it is collected. The chances are that during a year's business some accounts will be made that are uncollectable. This is to be expected if a general credit business is done as

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it ordinarily is in a country town, and security is not requirerd for every account.

We hear of a few cases where dealers claim to be able to collect up everything on their books. I have no reason to doubt they do, but I am pretty sure these are exceptions to the general rule prevailing in the retail business. Therefore, I agree with Mr. Walrath in his saying:

"Few concerns that I know of have found it possible to clean up their outstanding accounts when they sold their business on the basis of one hundred cents on the dollar."

I have always claimed that the amount of loss from bad accounts is never known until a business is sold out to another party. If you don't clean up your books every year, there is always a residue left, and this will go on accumulating every year till it gets to be a considerable amount. Quoting Mr. Walrath again:

Loss From Bad Accounts

"To hedge against this, 1 per cent. of the total average outstanding should be charged off each year. . . . Summing these up makes a total of 15 per cent., and lumber must, therefore, be sold at a price so that price less 15 per cent. will equal the first cost. All that is made over this is net profit. In order to return 15 per cent. net on the investment it will be necessary to obtain an average of 13 per cent. over the cost, or 28 per cent. gross on the sales."

This is more profit than most of you are getting, but it can be obtained if, as Mr. Walrath said, "each dealer would put prices on every lumber bill which he is willing to stand by. Dealers should make one price and 'stay put' regardless of whether or not they make the sale. . . . At present dealers are not selling lumber; farmers are buying it. They tell the dealer what they will pay, accept only such stock as they want, and then pay for it when they get ready. Sales might be curtailed to some extent the first year, but if all the dealers pull together, within twelve months the shrinkage in sales would be practically eliminated." And to this end Mr. Walrath suggested that the dealers of Nebraska adopt a reasonable, fair basis of terms on which to sell their stock.

"The average dealer," he said, "has from $8,000 to $15,000 in open book accounts and notes, which is an unnecessary investment, and, if eliminated, would lend a dignity to the business which it surely is in need of."

This is in line with what I have been advocating in the past. There is no good reason why the retailers should not have basic terms of sale as well as the wholesalers have. Everyone knows what they are, and calculations are made accordingly. Objections are made to this on the ground that conditions are not alike everywhere, or that it would take away from a dealer his individual action. The rates of interest are not the same in all states, because they are controlled by conditions. So the terms of sale for the retailers could be established in conformity with the general conditions.

Of course, no binding agreement could be entered into by the retailers as a whole, but I think every association could promulgate a tentative proposition that would be fair and equable, and doubtless its advantages would so appeal to the business judgment of the trade that its adoption would in time become general.—C. H. Ketridge, in the Mississippi Valley Lumberman.

Will Advertise Birch on its Own Basis

A new idea in wood advertising is to be carried out by the Northern Hemlock and Hardwood Manufacturers' Association in its campaign for birch, which is now opening on a basis of $20,000 a year. The Northern manufacturers will advertise birch under its own name, and try to discourage the use of this American wood as mahogany, though this is the finish under which it is best known. The birch campaign will be launched at once on a rational basis, and this will be the slogan of the campaign: "Birch is birch, not mahogany." The subscribers to the advertising campaign are coming in so rapidly that it is possible that before the end of the first year the appropriation will have reached $25,000. The campaign is to be over a five-year period

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The United States Treasury Department has sent out an important communication to the collectors of customs relative to the collection of countervailing duty on printing paper from Canada. The letter is as follows:

"The department has received information from the Department of State that the Province of Quebec no longer collects the excess tax of 25 cents per cord on pulpwood cut from the crown lands of that province secured prior to May 1, 1910, which the department has heretofore held to constitute an export duty.

"Additional duty should not, therefore, be collected under the provisions of paragraph 322 of the Tariff Act of October 3, 1913, as amended by section 600 of the Revenue Act approved September 8, 1916, on printing paper imported either directly or indirectly from the Province of Quebec.

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Floor space 7 feet 6 inches x 3 feet 6 inches.

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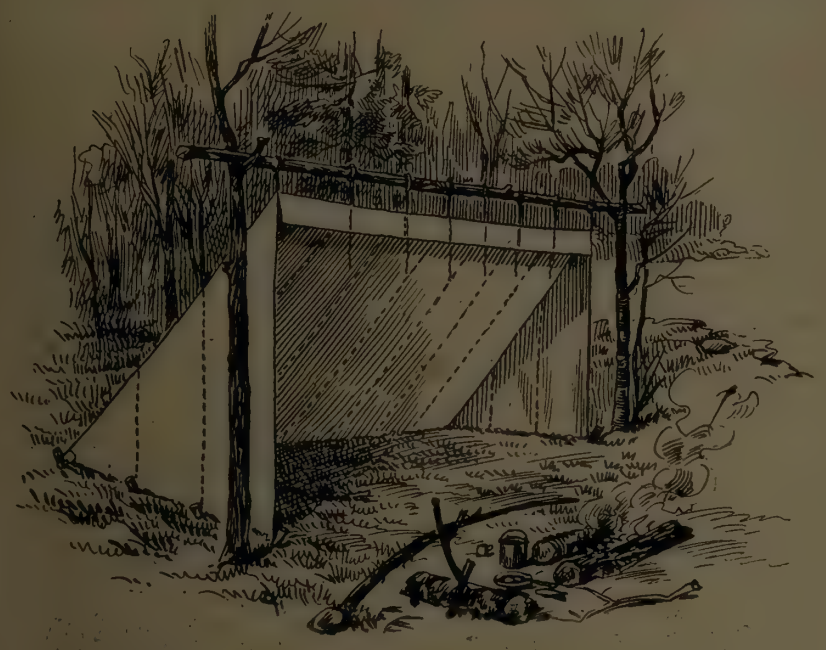

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EDGINGS

Ontario

The Cleveland Sarnia Saw Mills Company, Sarnia, Ont., commenced operating their mill for the present season on April 2, giving employment to about 200 men.

The National Shipbuilding Company has been incorporated with head office at Goderich, Ont., and capital stock of $100,000, to carry on a general shipbuilding business. Among those interested are W. H. Hutchinson, St. Catharines, Ont., and E. A. Larmouth, 15 Delaware Avenue, Ottawa.

The Goderich Dry Dock and Shipbuilding Company, who are constructing yards at Goderich, Ont., on the north side of the harbor, are in the market for a large quantity of wood piles and 42 pieces of British Columbia timber, 16 ft. long by 12 in. square. The manager is John Youngson, Box 171, Goderich, Ont., and the engineer is J. Ades Fowler.

The Beaver Board Timber Company, recently formed as a subsidiary organization of the Beaver Board Companies, with plants at Ottawa, Thorold, Buffalo, N.Y., and Charlton, Ont., are planning extensive additions to the equipment which they recently secured from the Smith-Fassett Lumber Company, at Charlton. The sawmill will be materially enlarged and a new, modern drum barker will be installed.

The Shevlin-Clarke Company, Fort Frances, Ont., have started operations at their sawmill for the 1917 season. The company report that they were very successful in their woods operations during the past winter, and are preparing for a busy summer at the mill. About 650 men will be given employment this year in addition to those engaged upon driving operations. The company report that business conditions in connection with lumber have shown considerable improvement, and that everything now indicates a continued period of good business.

J. F. Hewitson, Port Arthur, Ont., has been awarded the contract for the construction of the new pulp mill for the Port Arthur Pulp and Paper Company and is under instructions to commence work immediately. The complete price of the contract has not been made public, but for the construction of the fifty-ton mill it is reported that the figure is $350,000. The present plans of the company, according to the latest reports, are to construct a fifty-ton mill, which will subsequently be enlarged to a capacity of 100 tons, and later to construct a seventy-five-ton paper mill.

Eastern Canada

W. K. Baldwin & Co., lumber dealers, Baldwin's Mills, P.Q., have been registered.

The Canadian Butter Box Company's factory at D'Israeli, P.Q., near Sherbrooke, was recently destroyed by fire.

The Pontiac Lumber & Pulp Company has been incorporated, with head office at Makimik, P.Q., and capital stock of $49,000, to manufacture pulp, paper, etc.

A Chatham, N.B., despatch states that the Swedish-Canadian Lumber Company has sold its property, consisting of 260 square miles of timber, to J. B. Brand, of St. John, and W. D. Gunter, of Fredericton. The mill will operate at Rexton, N.B., this year.

Business men of Campbellton, N.B., are looking into a proposition for establishing a shipbuilding plant at that point, and are getting all particulars in regard to the situation. It is considered probable that they will undertake a step of this nature. The chief party interested is Mr. Alexander McLennan.

During the fiscal year ended December 31st, 1916, the profits from the pulp and lumber operations of the St. Maurice Paper Company totalled $306,767. The Union Bag and Paper Company owns 75 per cent. of the stock. The St. Maurice Company have recently erected paper, sulphite and sulphate mills at Three Rivers, P.Q.

J. A. B. Cowles, of New York, with a party including the company's engineer, G. Drew, of Brunswick, Me., were in St. John, N.B., recently, after a visit to the new mill of the Pejepscot Lumber Company, at Salmon River, of which Mr. Cowles is the head. He reported himself well pleased with the extensive improvements made to the plant, including the installation of a new wood barking machine. The company export large quantities of pulpwood to Maine.

Western Canada

The Brunette Sawmills Company have completed a new shingle mill to replace the one destroyed by fire a few months ago at New Westminster, B.C. This plant has seven machines.

The Tsolum River Lumber Company, Limited, has been incorporated, with head office at Courtenay, B.C., and capital stock of $10,000, to carry on business as manufacturers and dealers in lumber and timber of all kinds.

The British Columbia-Iowa Lumber Company, Ltd., has been incorpor-

ated, with head office at Vancouver, B.C., and capital stock of $200,000, to carry on business as manufacturers of and dealers in lumber, timber, sawlogs, shingles, wood-pulp, etc.

The Coal Harbor Shingle Company, Limited, has been incorporated, with head office at Vancouver, B.C., and capital stock of $25,000, to carry on business as shingle merchants, timber merchants, and to deal in shingles, logs, timber, bolts, lumber, wood, etc.

The Red Cedar Products, Limited, has been incorporated, with head office at Vancouver, B.C., and capital stock of $10,000, to carry on business as timber and lumber merchants, sawmill proprietors and to manufacture and deal in saw logs, timber, lumber, shingles, etc.

A report from Victoria, B.C., states that a large pulp plant will be erected at Nimpkish River by one of the largest pulp manufacturing firms on the continent, whose name has not yet been made public. The report also states that the proposition will involve the investment of about $4,000,000.

The Drury Logging Company, Limited, has been incorporated, with capital stock of $50,000 and head office at Vancouver, B.C., to carry on business as lumber and timber merchants, mill owners, lumber and shingle manufacturers, and to deal in saw logs, timber, lumber, shingles, sash, doors, etc.

The Clearwater Shingle Company, Limited, has been incorporated, with head office at Wiley's Spur, near Hall P. O., B. C., and capital stock of $20,000, to carry on business as sawmill and shingle mill proprietors, lumbermen, timber merchants, and as manufacturers of lumber, timber, pulp and timber products of all kinds.

The Rainy River Pulp and Paper Company has secured an extra-provincial charter to carry on business as manufacturers and dealers in logs, lumber, timber, etc. The head office of the company is at Dover, Delaware, U.S.A., and the provincial office is at 222 Standard Bank Building, Hastings Street, Vancouver, B.C. The capital stock is $1,000,000.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 9th day of June, 1917, for the purchase of License X913, to cut 7,425,000 feet of hemlock, cedar, and spruce, and 1,200 lineal feet of piling on an area adjoining Lot 1605, Juskatla Inlet, Graham Island, Queen Charlotte Islands District. Three years will be allowed for the removal of the timber.

The Grain Growers' Grain Company, Winnipeg, Man., are planning to erect a sawmill to cost about $150,000 located on a timber limit sixty miles east of Fort George, B.C., on the Grand Trunk Pacific Railway. The company have owned this timber since 1913, but have not formerly developed it. Their idea is to produce their own lumber and supply the farmers direct. The mill is to have a capacity of 20,000,000 feet per year.

The Manitoba Pulp and Paper Company, Ltd., are reported to be considering the erection and operation of a plant at some convenient point in the Province of Manitoba. Mr. J. D. McArthur, who represents the company, has suggested that the plant be located at Winnipeg, providing certain concessions can be obtained. The company is capitalized at $1,000,000, and plans have been prepared for a fifty-ton mill. From 1,500 to 3,000 horse power will be required, and a large number of hands will be given employment. The Winnipeg Council are considering Mr. McArthur's suggestions.

The Timberland Lumber Company, Limited, New Westminster, B. C., are building a heavy fir timber mill which will handle timbers up to 48 ins. by 48 ins., 120 feet long. The capacity will be in the neighborhood of 125,000 feet per ten hours and it is expected that the mill will be ready for operations by the end of 1917. Special booming facilities will be constructed so that each log will have a separate pocket of its own. This will enable the company to handle rush orders for any length of timber, without extra sorting or trouble. The booming ground will have a capacity of 7,000,000 feet of logs, all of which will be available at a moment's notice, without the use of a tug. The firm do not propose paying much attention to the trade for "uppers," but will specialize in select common and No. 1 common fir timbers of any size or length and expect to be able to dress timbers to the largest sizes required. A substantial export wharf will be constructed and rail connections, direct or indirect, have been arranged with the C. P. R., C. N. R., G. N. R., N. P. R., and the Chicago Milwaukee and St. Paul railroads. The log supply will be obtained chiefly from the coast.

Swedish Association of Canada Formed

Mr. H. Helin, manager of the Wayagamack Pulp and Paper Company, Three Rivers, P.Q., has been elected vice-president of a Swedish Association of Canada, formed on April 7 in Montreal. The directors are Messrs. E. Alsson, manager of the Brompton Pulp and Paper Company, Limited, East Angus, P.Q., and P. B. Anderson, general manager, Swedish Importing Company, Limited, Winnipeg, with Mr. W. Lammers, president, Swedish Steel and Importing Company, Limited, Montreal, as secretary-treasurer. The object of the association is to further closer trade and social relations between the two countries.

Seattle, Wash., has given the steel world a surprise, by going to heart of the steel industry, Pittsburgh, to place a contract for a wooden stave pipe line, with a minimum price of $260,000, and which may run to $300,000. The line will be two miles long and twelve feet inside diameter, and four solid trains will be required to ship the staves.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
1 x 6 in. 10/16 ft. merchantable	29 M
1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable.	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

The McLennan Lumber Co.
LIMITED
Wholesale and Retail
21 Dorchester Street W. - MONTREAL, QUE.
Telephone Main 8656. Private exchange to all departments

H. BOURGOUIN
Dominion Express Bldg., 145 St. James St., Montreal
WHOLESALE LUMBER AND TIMBER
Dressed and Rough
White and Red Pine, Spruce, Hemlock, Banksian Pine, Birch, Maple, Dimension Cedar, B. C. Fir, Yellow Pine, Railway Ties, Fence Posts, etc.
Prompt shipment. Satisfactory stock. Good service Write for Prices.
A. F. B. AUSTIN, Manager

Your Blower System

If you contemplate installation of a new blower system or an extension of your present one, write us, as we have a unique proposition to offer. There is no heating, clogging or shaking with our system.

Prices on application

The Toronto Blower Co.
156 Duke St., Toronto

Don't Take a Chance!

Be sure of the ***maximum*** profit from your Waste Wood. Instal Wood Distilling and other Chemical Equipment with a Reputation and a guarantee behind it.

We have been making special process chemical plants for over 75 years, installed throughout the world. Wood Distilling Plants in operation which we built during the past few years distil more than 400 tons per day.

Write us To-day

BLAIR, CAMPBELL & McLEAN
GLASGOW, SCOTLAND LIMITED

Est. 1838. Cables: "Blazon, Glasgow". Code: ABC—5th

Insure your horse against sickness

Why not? You protect your mills against fire by installing fire-fighting apparatus; you protect your employees against accident by the use of machinery guards—then why not protect the health and efficiency of your horses? And how? By keeping in your stables a good supply of Dr. Stewart's Veterinary Remedies.

It may be the means of saving the life of many good horses, and will keep them sound and vigorous at all times.

A LIST OF DR. STEWART'S VETERINARY REMEDIES

Stewart's Sure Cure (antiseptic gall cure) the original, in liquid form, 16 oz. bottles	$9.00 doz.
Stewart's Excelsior Liniment, 32 oz. bottles	9.00 "
Stewart's Lightning Colic Cure, the only colic cure that removes the cause, 16 oz. bottles	8.00 "
Stewart's Pure Condition Powders, 2 lb. air tight tin can	5.00 "
Stewart's Hoof Ointment, 1 lb. can	5.00 "
Stewart's Heave Relief, large can	5.00 "
Stewart's Cough and Distemper Cure, 50 doses to bottle	7.00 "
Stewarts Proud Flesh Powders	2.50 "

The Palmer Medical Co., Limited
Windsor, Ont.

128,350 Laths in Ten Hours

Our Lath-Mill and Bolter have made a test cut in ten hours of 128,350 four foot laths, 1½ in. by ⅜ in., counted, tied and piled.

Four-Saw Bolter

A Few of the "400" who use Payette's Lath-Machinery:

Chaves, Bigwood Co., Byng Inlet, Ont.
Victoria Harbor Lumber Co., Victoria Harbor, Ont.
Georgian Bay Lumber Co., Waubaushene, Ont.
Colonial Lumber Co., Pembroke, Ont.
Theo. A. Burrows, Grand View, Man.
Wm. Milne & Sons, North Bay, Ont.
C. Beck Mfg. Co., Penetanguishene, Ont.
Manley Chew, Esq., Midland, Ont.
Chew Bros., Midland, Ont.
James Playfair Co., Midland, Ont.
McFadden & Malloy, Sprague, Ont.
Pembroke Lumber Co., Pembroke, Ont.
Petawawa Lumber Co., Ltd., Pembroke, Ont.
Firstbrook Box Co., Penetang, Ont.
Gres Falls Lumber Co., Three Rivers, Que.
Foley Bros. & Northern Coast Co., Scot, Ont.
Spanish Mills Lumber Co., Ltd., Cutler, Ont.
Spanish Mills Lumber Co., Spanish Station, Ont.

P. Payette Co.

Engineers and Machinists,
PENETANGUISHENE, ONT., CAN.
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DUNLOP PACKING

WRAPPED UP IN "DUNLOP" PACKING

¶ A prejudice for Dunlop Packing is one prejudice you can afford to have. Dunlop Packing gets right down to business at the start. It needs no coaxing to show what it can do in meeting abnormal service or severe tests—continuously kept up.

¶ Dunlop **"LongLife"** Square Spiral Piston Rod Packing is the Engineer's assistant, and a mighty faithful one, too, for, no matter how arduous the duties imposed, it is never wanting in efficiency. Economy of operation and Dunlop **"LongLife"** Spiral go hand in hand, because once the latter is put to work it will stick to the job indefinitely.

¶ Absorbs lubricants and ensures a constant contact of oil with the wearing surface. Just naturally adapts itself to all conditions and to any inequalities of the Rod or Stuffing-Box. Simply adjusted and without hammering. Remains tight without friction. There is no waste of fuel, no loss of power with Dunlop **"LongLife"** Packing.

¶ Dunlop **"Globe"** is another Spiral Packing we can readily recommend.

¶ **"Sunset"** (red) and **"Admiral"** (blue) Sheet Packings are also very popular in Canadian factories and mills.

¶ No matter for what purpose you require Packing, you will find the Dunlop Line more than measures up to your standard, because the experience of twenty-three years is back of Dunlop Rubber-Made Goods—Truly-Canadian experience, too.

Dunlop Tire & Rubber Goods Co., Limited

Head Office and Factories: Toronto.

BRANCHES: Victoria, Vancouver, Edmonton, Calgary, Saskatoon, Regina, Winnipeg, London, Hamilton, Toronto, Ottawa, Montreal, St. John, Halifax.

Q. 17

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa, Deputy Minister.

December 20th, 1912.

Alligator Harness will stand rough work

We make several special brands of heavy harness particularly suitable for the lumber trade. In our years of Service to Canadian Lumbermen we have learned exactly the qualities necessary in a set of harness to give lasting satisfaction. You will find our product very strong without being too heavy; absolutely waterproof; able to withstand any amount of rough work in sleet and snow and the leather will continue to be pliable and tough.

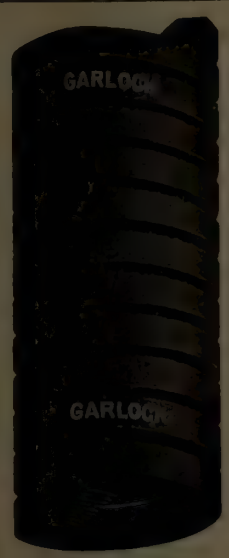
Write for catalogue and prices.

Lamontagne Limited

MONTREAL—338 Notre Dame St. W.
WINNIPEG—85 Princess St.

Garlock Packings

Are made in over two hundred styles and combinations to meet every known requirement. We will assume entire responsibility in selecting the proper styles and combinations of our packings to work successfully and economically under any stated condition; and if goods are not wholly satisfactory to purchaser we will refund promptly the cost of same. A card will bring our new catalog which fully describes our various styles of packings.



Style No. 777

Style No. 150

The Garlock Packing Co.

Hamilton, Ontario

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Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

MORE WORK; LESS COST!

That's what you want and that's what you will get if you install in your plant one of these

Labor-Saving, Automatic Circular Saw Sharpeners

No. 1 for Saws 6 to 40 ins. diam.
No. 2 for Saws 8 to 48 ins. diam.
No. 3 for Saws 8 to 72 ins. diam.

We also make a complete line of

Automatic Band Saw Sharpeners
and
Automatic Knife Grinders

Write for Catalogue showing the complete Rogers-Buffalo line.

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CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better.	$50 00	52 00
1½ inch No. 1 cuts and better.	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing	35 00	36 00
1 x 12 common and dressing	38 00	40 00
1 x 10 and 12 mill cull stocks.	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out.	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	40 00
1 x 8 box and common		30 00
1 x 10 inch box and common.		32 00
1 x 12 inch box and common.		32 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	30 00	32 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill run 1-in. and 2-in.	28 00	30 00
Spruce mill culls	25 00	26 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft.		22 00
1 x 6-in. x 9 to 16 ft.		26 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		27 00
2 x 4 to 12 in., 12 and 14 ft.		26 00
2 x 4 to 12-in., 18 ft.		30 00
2 x 4 to 12-in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in. B.C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		36 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		37 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		37 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		38 00
10x20, 18x20, up to 32 ft.		38 50
6x18, 8x18, up to 32 ft.		38 50
6x20, 8x20, up to 32 ft.		39 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain		39 00
Fir flooring, 1 x 4, edge grain		42 00
Fir flooring, 1 x 4, flat grain		33 00
No. 1 and 2, 1-in. clear Fir rough		44 50
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		50 00
No. 1 and 2, 2-in. clear Fir rough		46 00
1½-in. No. 1, 4-ft. pine lath		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath.		4 25
1½-in. mill run hemlock lath		4 00
XX B. C. cedar shingles		2 55
XXX 6 butts to 2-in.		3 60
XXXXX		4 05

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	$65 00	71 00
Ash, white, No. 1 common		45 00
Ash, brown, 1sts and 2nds, 4/4		57 00
Ash, brown, com. and bet.		45 00
Ash, brown, 1sts and 2nds, 6/4 and 8/4		65 00
Birch, 1st and 2nds, 4/4		50 00
Birch, No. 1 com. and bet., 4/4		40 00
Birch, 1st and 2nds, 6/4 and 8/4		55 00
Birch, 1st & 2nds, 10/4 and 12/4		65 00
Birch, 1st and 2nds, 16/4		70 00
Basswood, 1sts and 2nds, 4/4		50 00
Basswood, No. 1 com. and bet., 4/4		43 00
Basswood, No. 2 and 3, common		22 50
Basswood, 6/4 and 8/4, 1sts and 2nds		55 00
Basswood, 6/4 and 8/4, com. and bet.		42 00
Basswood, 4/4, No. 2 com. and bet.		37 00
Soft elm, 1sts and 2nds, 4/4		45 00
Soft Elm, No. 1 com. and bet., 4/4		38 00
Soft Elm, No. 2 and 3 common.		19 00
Soft Elm, 6/4 and 8/4, 1 and 2		50 00
Rock Elm, 1sts and 2nds, 6/4 & 8/4		55 00
Rock Elm, No. 2 com. and bet., 6/4 and 8/4		40 00
Soft Maple, 1sts and 2nds, 4/4		40 00
Soft Maple, com. and bet., 4/4.		33 00
Soft Maple, 6/4 & 8/4, 1sts and 2nds	45 00	50 00
Hard Maple, 1sts and 2nds, 4/4		43 00
Hard Maple, com. and bet., 4/4		37 00
Hard Maple, 12/4 and 16/4, 1sts and 2nds	65 00	70 00
Red Oak, plain, 1sts and 2nds, 4/4		62 00
Red Oak, plain, No. 1 com., 4/4		43 00
Red Oak, plain, No. 2 com., 4/4		32 00
Red Oak, plain, 1sts and 2nds, 6/4 and 8/4		68 00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	77 00	85 00
White Oak, plain, 1sts and 2nds, 4/4		62 00
White Oak, plain, No. 1 com, 4/4		43 00
White Oak, plain, No. 2 com., 4/4		32 00
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	62 00	65 00
Red and White Oak, plain, No. 1 com., 5/4 and 6/4		45 00
Red and White Oak, plain, No. 2 com., 5/4 and 6/4		35 00
Red and White Oak, plain, 1sts and 2nds, 8/4		70 00
Red and White Oak, plain, No. 1 com., 8/4		50 00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00	85 00
White Oak, ¼ cut, 1sts and 2nds, 4/4		89 00
White Oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds		92 00
White Oak, ¼ cut, No. 1 com.		57 00
Hickory, 1sts and 2nds, 4/4		62 00
Hickory, 6/4 and 8/4, 1sts and 2nds		70 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$55 00	57 00
1¼-in. and 1½-in. x 8-in. & up	64 00	67 00
2-in. x 7-in. and up	65 00	68 00
No. 2 cuts 2 x 8-in. and up	42 00	45 00
Pine good strips:		
1-in.	42 00	44 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	53 00	56 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	45 00
1-in. x 4-in. to 6-in.	32 00	34 00
1¼-in. and 1½-in.	53 00	55 00
2-in.	54 00	56 00
7-in. to 9-in. A sidings	27 00	30 00
Pine, No. 1 dressing sidings	35 00	38 00
Pine, No. 1 dressing strips	30 00	33 00
Pine, No. 1 dressing shorts	28 00	30 00
Pine, 1-in. x 4-in. s.c. strips		30 00
Pine, 1-in. x 5-in. s.c. strips		31 00
Pine, 1 in. x 6 in. s.c. strips		33 00
Pine, 1-in. x 7-in. s.c. strips		30 00
Pine, 1 x 8 in., s.c., 12 ft. to 16 ft.		34 00
Pine, 1-in. x 10-in. M. R.		36 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1 in.		27 00
1¼, 1½ and 2-in.	31 00	32 00
Pine, s.c. shorts, 1 x 4 to 6 in.	24 00	26 00
Pine, s.c. and bet., shorts 1 x 5		25 00
Pine, s.c. and bet., shorts, 1 x 6		27 00
Pine, s.c. shorts, 6'-11', 1"x 10"		30 00
Pine box boards:		
1"x 4" and up, 6'-11'		24 00
1"x 3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	25 00	27 00
Pine, mill culls stock, 1 x 12	28 00	30 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		22 00
O. culls r & w p	15 00	16 00
Red Pine, log run:		
mill culls out, 1-in.	26 00	28 00
mill culls out, 1¼-in.	26 00	28 00
mill culls out, 1½-in.	26 00	28 00
mill culls out, 2-in.	28 00	30 00
mill culls, white pine, 1"x 7" and up	21 00	26 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	18 00	23 00
1"x 4" and up, 12'-16'	26 00	27 00
1"x 9"-10" and up, 12'-16'	27 00	33 00
1¼"x 7" 8-9" and up, 12'-16'	27 00	33 00
1¼"x 10" and up, 12'-16'	27 00	34 00
1½" & 2"x12" and up, 12'-16'		36 00
Spruce, 1-in. clear (fine dressing and E)		37 00
Hemlock, 1-in. cull	15 00	18 00
Hemlock, 1-in. log run	21 00	22 00
Hemlock, 2x4, 6, 8, 10, 12/16'	23 00	26 00
Tamarac	19 00	20 00
Basswood, log run, dead culls out	22 00	24 00
Basswood, log run, mill culls out	23 00	26 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$56 00
1 in., 8 in. and up wide	65 00
1¼ and 1½ in. and up wide	67 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	52 00
6/4 x 8 and up No. 1 and better	63 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	54 00
8/4 x 6 and up No. 2 and better	56 00
6/4 x 6 and up No. 3 and better	48 00
8/4 x 6 and up No. 3 and better	52 00
No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1¼ in., 8 in. and up wide	59 00
1½ in., 8 in. and up wide	59 00
2 in., 8 in. and up wide	62 00
2½ and 3, 8 in. and up wide	75 00
4 in., 8 in. and up wide	85 00
No. 2 Cuts	
1 in., 6 in. and up wide	34 00
1¼ in., 6 in. and up wide	47 00
1½ in., 6 in. and up wide	47 00
2 in., 6 in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2 in., 6-in. and up wide	33 00
2½, 3 and 4 in., 6 in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1 in. x 4 in.	29 00
1 in. x 5 in.	29 00
1 in. x 6 in.	30 00
1 in. x 8 in.	31 00
1 in. x 10 in.	33 00
1 in. x 12 in.	35 00
1 in. x 13 in. and up	35 00
1¼, 1½ and 2 in.	32 00
No. 1 Barn	
1 inch	34 00 45 00
1¼, 1½ and 2 in.	36 00 45 00
2½ and 3 in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	30 00 36 00
1¼, 1½ and 2 in.	32 00 36 00
2½ and 3 in.	38 00
No. 3 Barn	
1 inch	29 00 33 00
No. 1, 1, 1¼, 1½, 2-in.	29 00
Box	
No. 1, 1, 1¼, 1½, 2 in.	24 00 27 00
No. 2, 1¼, 1½, 2-in.	24 00
Mill Culls	
Mill run culls, 1 in.	23 00
1, 1¼, 1½ and 2-in.	24 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 85
No. 2, 48 in. pine	4 60
No. 1, 48 in. pine	5 00
No. 3, 48 in. pine	4 15
Hemlock Lath, 48-in.	4 15

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension.	S. 1 S. and 1 E.			
	6 ft.	8 ft.	10 ft. 14 & 16 ft.	
2 x 4, 6, 8	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.

2 x 4, 8, 12, 14, 16	23 50	
2 x 4, 10, 18, 20	25 50	
2 x 6, 8 to 16	23 50	
2 x 8, 8 to 16	23 50	
2 x 4-6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50	
2 x 10 and 2 x 12; 8 16 ft.	28 50	
2 x 10 and 2 x 12; 18, 20, 22 ft.	30 50	
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50	
No. 1 Common Boards.		
4 inch	23 00	
6 inch	25 50	
8, 10, 12 inch	27 50	
Mixed widths	26 50	
Flooring.		
4 or 6 inch No. 1	37 00	
4 or 6 inch No. 2	32 00	
4 or 6 inch No. 3	26 00	
Shiplap—Finished.		
6 inch	24 00	
8, 10 and 12 inch	25 00	
Siding.		
6 inch No. 1	37 00	
6 inch No. 2	35 00	
6 inch No. 3	27 00	
Lath.		
No. 1 Cedar, pine, spruce (not mixed)	5 00	
No. 1 Cedar, pine, spruce (mixed)	4 50	

PINE—ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 10
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft.	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft.	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft.	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft.	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft.	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft.	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in. F. G.	30 00
Nos. 1 and 2, 1 x 6 in., F G.	35 00
No. 3, 1 x 4 in.	28 00
No. 3, 1 x 6 in.	33 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ⅜ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers, 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 56)

It Costs Money To Be Without An International

You have heard of the law breaker who takes a "little knick" out of every silver coin he handles—imagine your wealth if you had done that.

Apply the idea to your business—your large shifts of men—each man "shaving" half a minute from his time. A trivial matter individually but amazing in the aggregate—an irreparable loss of minutes and money. Imagine your loss if you ignore this.

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When a man is late, red print on the time card warns him. It also guides your office when making up the pay roll.

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CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	36 - 38	23 - 25	14 - 16
5/4 to 8/4	42 - 45	28 - 30	16 - 18
10/4 to 16/4	48 - 52	33 - 35	20 - 22

RED BIRCH

4/4	50 - 52	30 - 21	18 - 20
5/4 to 8/4	54 - 56	32 - 34	18 - 20

SAP BIRCH

4/4	45 - 47	30 - 32	18 - 20
5/4 and up	50 - 52	32 - 34	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	38 - 40	28 - 30	18 - 20
Thicker	40 - 42	30 - 32	20 - 22

PLAIN OAK

4/4	52 - 54	33 - 35	19 - 21
5/4 to 8/4	51 - 53	29 - 31	17 - 19

ASH, WHITE AND BROWN

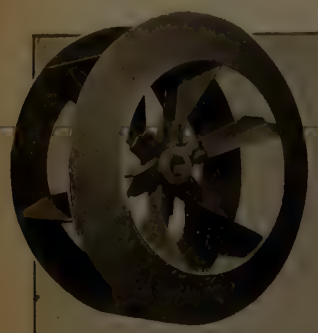
4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	56 - 58	31 - 33	18 - 20
10/4 and up	69 - 81	43 - 45	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in..	109 00
Selects, 1 to 2 in.	99 00
Fine common, 1 in.	71 00
Fine common, 1¼ to 2 in.	76 00 78 00
No. 1 Cuts, 1 in.	59 00
No. 1 Cuts, 1¼ to 2 in.	69 00 74 00
No 2 Cuts, 1 in.	42 00
No. 2 Cuts, 1¼ to 2 in.	53 00 59 00
Barn Boards, No. 1, 1 x 12	54 00
No. 1, 1 x 10	45 00
No. 1, 1 x 8	42 00
No. 2, 1 x 12	47 00
No. 2, 1 x 10	43 00
No. 2, 1 x 8	40 00
No. 3, 1 x 12	39 00
No. 3, 1 x 10	37 00
No 3, 1 x 8	35 00
Canadian spruce boards	27 00 28 00
Spruce, 10 in. dimension	38 00
Spruce, 12 in. dimension	39 00
Spruce, 9 in.	37 00
Spruce, 8 in. under dimen.	36 00
10 and 12 in. random lengths, 8 ft. and up	36 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7	30 00
3 x 4 and 4 x 4 in.	31 00
2 x 8 in.	33 00
All other random lengths, 7-in. and under, 8 ft. and up	31 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	27 00 28 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	26 00 27 00
1¼ in. spruce laths	5 00 5 25
1½ in. spruce laths	4 50

New Brunswick Cedar Shingles

Extras	4 50	4 75
Clears	4 15	4 40
Second clears	2 80	3 15
Clear whites	2 00	2 25
Extra 1s (Clear whites in)	1 75	2 00
Extra 1s (Clear whites out)	1 65	1 90
Red Cedar Extras, 16-in. 5 butts to 2-in.		4 23
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 45
Red Cedar Perfections, 5 butts to 2¼		5 22
Washington 16-in. 5 butts to 2-in. extra red cedar		3 76



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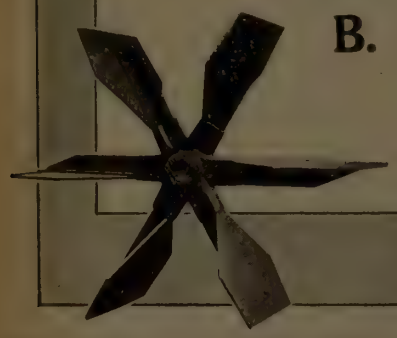
Planing Mill Fans

For more than 50 years we have been studying the pneumatic removal of dust and shavings, and have now adopted different designs of Slow Speed Wheels which successfully fulfill every need encountered in a planing mill. Let us recommend the one best suited to your needs.

Ask for Catalog 155-C.



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Blanchard Lumber Co.
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Eastern Spruce
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Shingles
and
Lath

Shipment by car, canal boat or cargo.

Owing to constantly increasing sales we are anxious to establish new connections with Eastern Spruce mills, for shipment by car to Boston and New York markets, or by canal boat from Quebec to New York.

We also desire more connections with manufacturers of British Columbia red cedar shingles and cedar siding.

We will buy outright or sell on a 5 per cent. commission.

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Cedar Shingles
Hard Pine
Maple
Floors

We manufacture Spruce at our own Mills at Portage, Maine, U. S. A., and therefore we know what big prices mean to the manufacturer

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Taps — Dies — Reamers — Cutters — Drills
MADE IN CANADA
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Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

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Stitched Cotton Duck Belting

A trial Belt will convince you. Write for prices and samples.

Excels all others in economy, strength, efficiency and true running, whether for transmission of power or conveying. A test recently made at McGill University Montreal, of a 6-ply **"Maple Leaf"** belt, a light double leather, and a 6-ply rubber belt, showed that our **"Maple Leaf"** Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts
Are the Best on the Market

"Maple Leaf" Belt Dressing is the best for all kinds of belts

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Branch: Montreal—Office 51 Duluth Building

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ROCHESTER, N. Y.

Manufacturers of—

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Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N.Y.

ONTARIO

Canada's Banner Province

Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

Pine production,	905,442,000 ft. B.M.
Pulpwood,	246,282 cords.
Railway Ties,	5,704,459.

Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

Ontario's vast resources offer unsurpassed opportunities to the lumberman.
For maps and full information regarding Ontario, apply to

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Minister of Lands, Forests and Mines.

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Write for prices, terms and testimonials

Corbet Foundry & Machine Company, Limited

OWEN SOUND, ONTARIO

The Three Goodhue Belts

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These three brands are made for three different services and each brand is the best quality made from selected hides with the stretch taken out.

"Goodhue Belts" stretch less than any other belt by 15 to 25 per cent. This quality effects a great saving because it is unnecessary to be continually shortening the belt to keep it taut.

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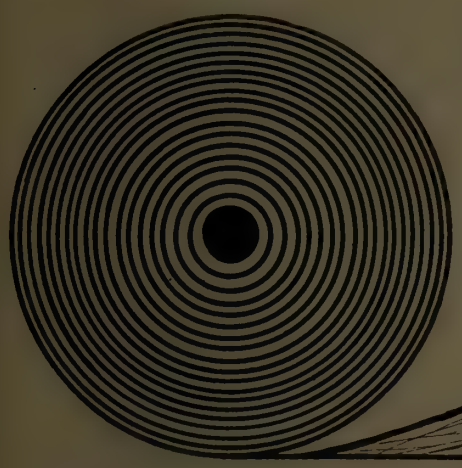

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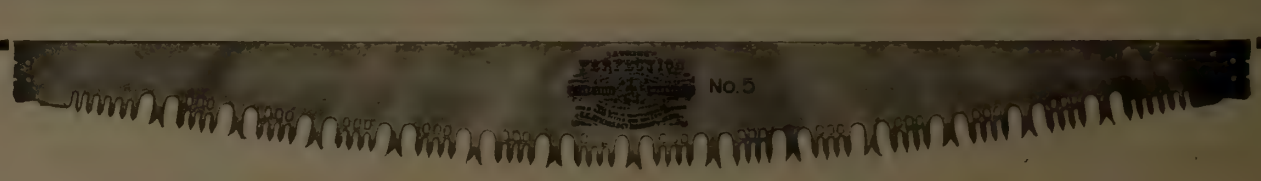

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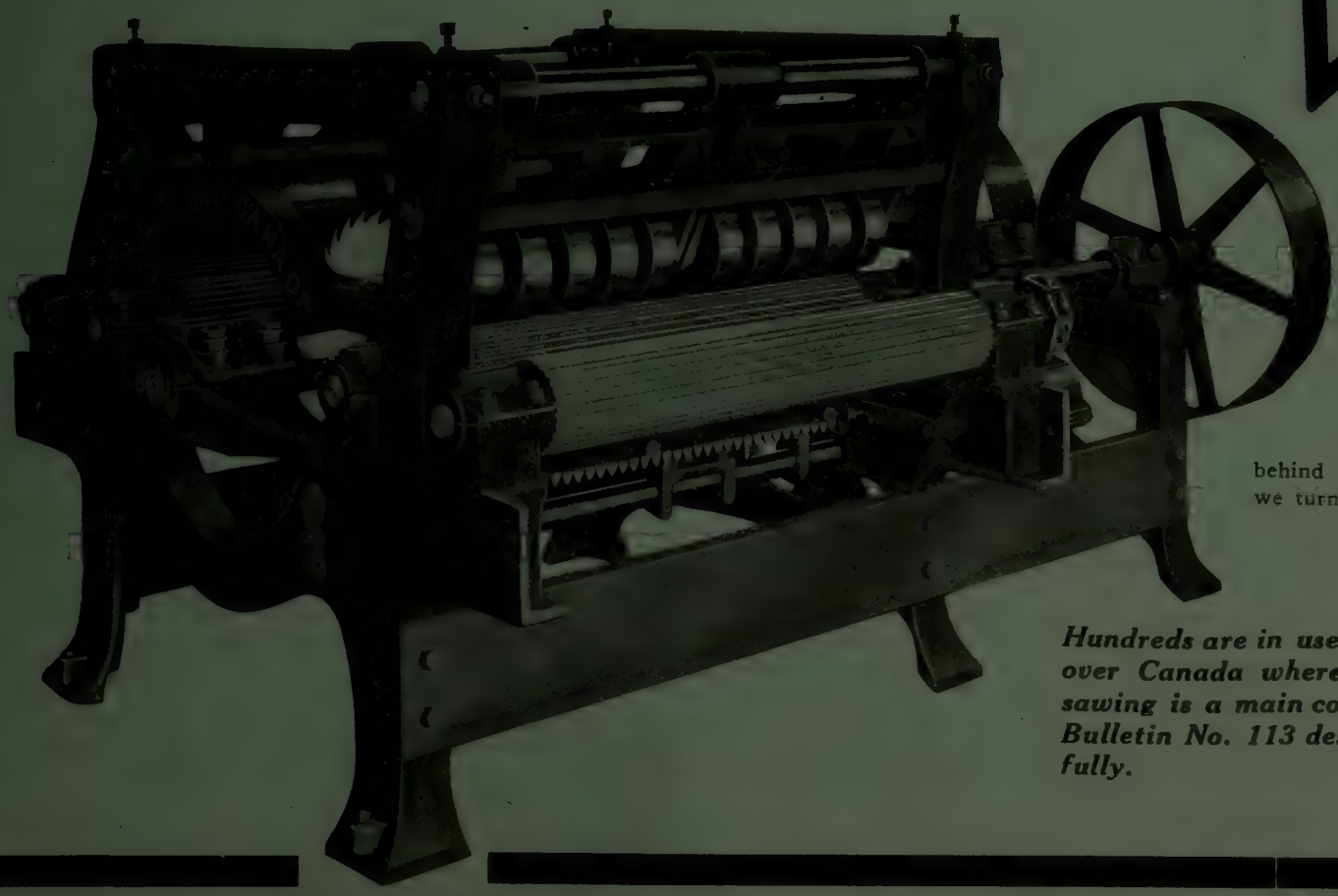


Waterous New Champion Edgers are fast and accurate cutting, easily operated, and perfectly safe. We stand behind every machine we turn out.

Hundreds are in use in mills all over Canada where quality of sawing is a main consideration. Bulletin No. 113 describes them fully.

The Waterous Engine Works Co., Ltd., Brantford, Canada

"FROST KING" METAL

$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engipes, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our TROJAN BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

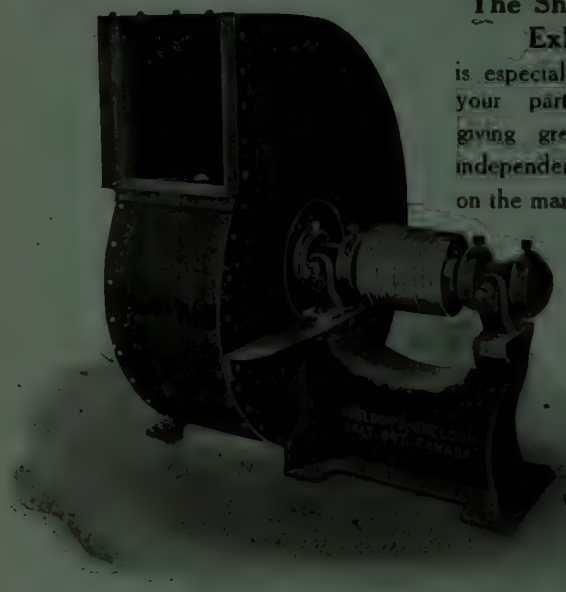
HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

is especially designed to suit your particular requirements giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

Messrs. Ross & Greig, 412 St. James St. Montreal, Que. Messrs. Walker's Limited, 259-261 Stanley St. Winnipeg, Man.

Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.

Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.

Montreal Toronto Winnipeg

The J. C. McLaren Belting Co.

Limited

General Mill Supplies MONTREAL

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE ONTARIO

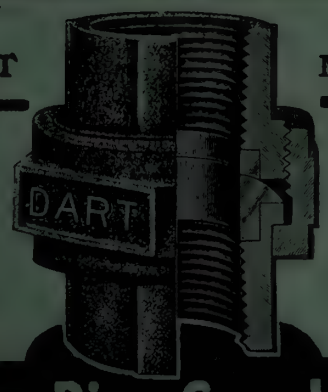
MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made

Canada Lumberman & Wood Worker

SAVE REPLACEMENT COST

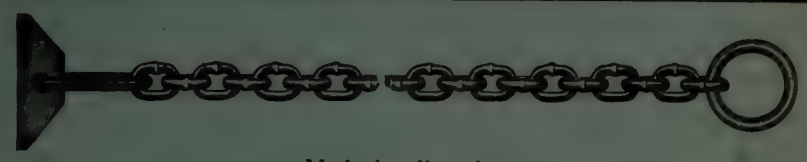
SAVE MAINTENANCE COST



Bronze to Bronze at the Joint

Your Jobber Sells Them

Dart Union Pipe Couplings NEVER LEAK



Made in all styles

Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada — Write to — Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

You can dry and cure lumber better in three weeks by using

Canadian Dry Kiln Apparatus with Humidity Control

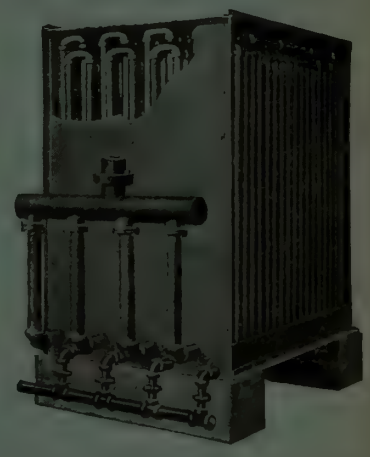
than if it were air dried for 2 years. And your lumber will not warp or check, or be subject to severe expansion and contraction.

Write Dept. 17 for further particulars.

Canadian Blower and Forge Co., Limited

KITCHENER, ONTARIO

St. John — Montreal — Toronto — Winnipeg — Vancouver



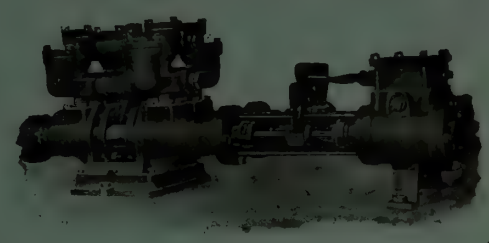
ASBESTOS

We manufacture practically every article that can be made of Asbestos—including

Asbestos { Packings, Boiler Gaskets, Pipe and Boiler Coverings

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)

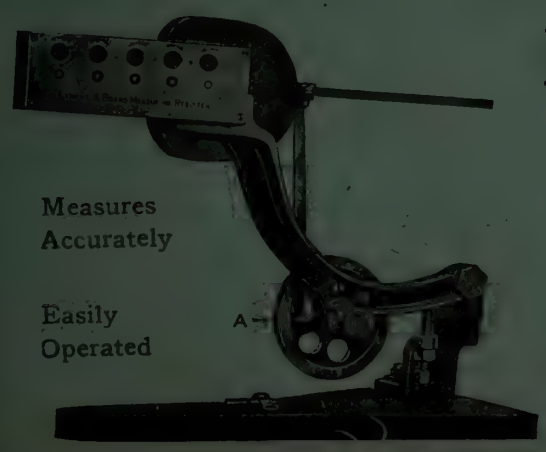


REDUCE repair bills. **INCREASE** efficiency.

by the installation of Pumps built by

The Smart-Turner Machine Co., Limited

HAMILTON - CANADA



Keep Tab On Your Stock

The Morrison Lumber Measuring Register can be used in the saw mill, planing mill, woodworking plant and retail lumber yard. It can be quickly attached to any machine and is guaranteed to accurately measure every stick as it is fed under the wheel of the register. It saves you money, time and labor.

Write for detailed information.

The James Morrison Brass Mfg. Co. Limited

93-97 Adelaide St. W., Toronto

J. M. T. Steam Specialties

We make a high-grade line including Reducing Pressure Valves, Pop Safety Valves, Injectors, Ejectors, etc., etc.

Alphabetical Index to Advertisers, Page 54 — Classified Directory to Advertisements, Page 60

THE cutting qualities of the "Famous Five" files may be compared to those of a sharp razor. They work with minimum effort and give maximum results.

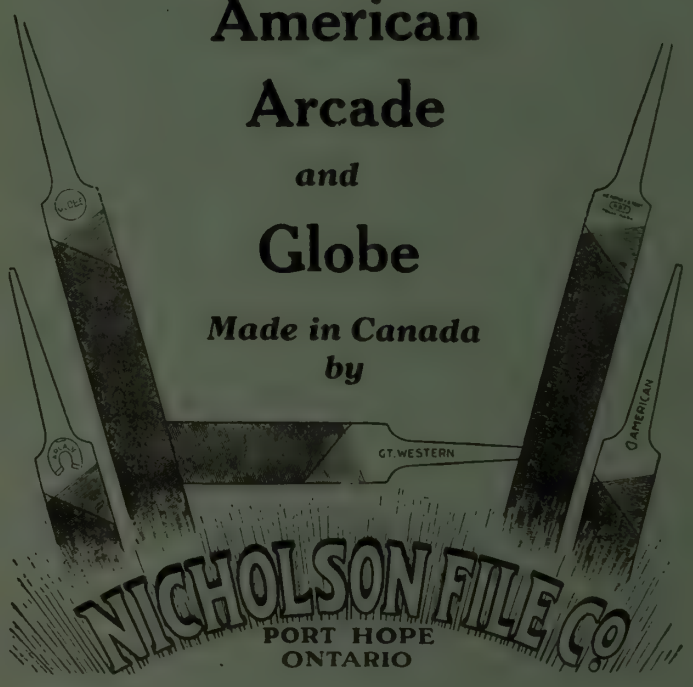
In brief, they are efficient. Their qualities have become standardized; and the "Famous Five" file standard is recognized by mechanics, shop superintendents and purchasing agents everywhere.

Specify them when ordering

They are:

Kearney & Foot
Great Western
American
Arcade
and
Globe

Made in Canada by



FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
1 Wood Machine for 22-in. wood.
1 Edger for ripping dry lumber, installed.
1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

The Parry Sound Lumber Co.

26 Ernest Ave. **Limited**

Toronto, Canada

We have on hand

the undermentioned lines of DRY STOCK:

Merchantable Spruce

2 x 4 x 10/16	-	50,000 feet
2 x 5 x 10/16	-	60,000 "
2 x 7 x 10/16	-	100,000 "
3 x 7 and up	-	33,000 "

5th Quality Spruce

3 x 5 and up	-	200,000 "

Merchantable Hemlock

1 x 9	-	40,000 feet
1 x 10	-	100,000 "
2 x 10	-	75,000 "
2 x 12	-	37,000 "

Mill Cull Hemlock

1 x 8	-	30,000 "
1 x 9	-	30,000 "
1 x 10	-	25,000 "
2 x 10	-	16,000 "
2 x 12	-	17,000 "

Bartram & Ball Limited

WHOLESALE LUMBER

Ottawa - - Canada

Murray & Gregory, Limited

Head Office:
ST. JOHN, N. B.

Established 1868

Quebec Office
ST. CAMILLE, Bellechase Co. P.Q.

SAW MILLS

St. John, N.B., St. Camille and Lake Frontier, Que., cutting SPRUCE and PINE Lumber for British, United States and Canadian Markets.

Also

LATH, SHINGLES, PULPWOOD and RAILWAY TIES

Manufacturing and Grading Right

Trade *Mark*

Address all enquiries to our Head Office, ST. JOHN, N. B.

ESTABLISHED 1888

We carefully selected our timber thirty years ago, when we could secure the best forest areas in British Columbia. This is the explanation of our ability to supply whatever size and grade the market may require.

We still own in fee simple over 3,000,000,000 feet of B. C. Douglas fir, cedar, hemlock and spruce timber. We will be in business another half century manufacturing this timber for Canadian consumers; therefore, we shall treat your trade as something of permanent value to us.

We have been 28 years in lumber manufacturing in British Columbia and have stood behind every contract. Look up our record.

Yours very truly,

The Victoria Lumber & Mfg. Co., Ltd.

Head Office and Mill - CHEMAINUS, B.C.

TRY OUR TIMBERS

Representatives everywhere

ALBERTA — H. S. Perkins, Calgary

SASKATCHEWAN — E. R. Sutherland, Saskatoon

MANITOBA — A. E. Mackney, Winnipeg

Eastern Sales Office—
Traders Bank Bldg., TORONTO, ONT.
R. G. CHESBRO, Rep.

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

Write for Prices

WANT TO MOVE

3 Cars 1 x 4 Merchantable Spruce,
D 2 S. and C. M.

100,000 ft. 2 x 4 and up No. 1 Red
and Jack Pine Mill Culls

50,000 ft. 3 x 6---10 No. 1 Com.
Georgia Pine

100,000 ft. 1 x 10 and 12 in. No. 2
White Pine Culls

The Long Lumber Company

Hamilton, Canada

Nashwaak Pulp and Paper Company

ST. JOHN, N. B.

Manufacturers of

Bleached
Sulphite and Lumber

(Successors to Edward Partington Pulp and Paper Co., Limited)

George Gordon & Co.

Limited

Cache Bay - Ont.

Manufacturers of

RED and WHITE PINE

PLANING MILL DRY KILN

The Ever Reliable

HANCHETT SWAGES

For

Band, Gang and Circular Saws

STANDARD THE WORLD OVER

Built in Sizes and Styles to Meet Every Requirement.

18,000 in use, or several times as many as any other make.

Write for Special Catalog on Swages "S-B".

SOLE DISTRIBUTOR

Machinery Company of America

Everything for the Care of Saws

GRAND RAPIDS, MICHIGAN

Everything for the Care of Knives

Distributors for

Baldwin, Tuthill & Bolton Covel Manufacturing Company Hanchett Swage Works

No. 25 American Blue Book—Saw and Knife Fitting Machinery—now ready.

Write us your requirements. *Your correspondence invited.*

Fraser Bryson Lumber Co., Ltd.

Office, Castle Building 53 Queen St. Ottawa, Can.

Wholesale Lumber Dealers and Selling Agents for

Fraser & Co.

Mills at

DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1″, 2″ and 3″ to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson

Chapleau, Ontario

Long Leaf Yellow Pine, Louisiana Red Cypress

Annual Capacity 350,000,000 Feet Yellow Pine
50,000,000 Feet Red Cypress

Nature's best in forest products

LET US QUOTE YOU PRICES

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

CHICAGO LUMBER & COAL COMPANY

Manufacturers

General Offices: EAST ST. LOUIS, ILLS.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

BASS WOOD

We offer for immediate shipment—

1″ and 1½″ Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—

1 x 8½″ 1 x 9″ and wider

1 x 6 and 7″ 1½″ to 4″

SPRUCE BASSWOOD
ASH HEMLOCK and PINE

HART & McDONAGH

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Phone Main 2262

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Watson & Todd Limited
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RED PINE WHITE PINE
SPRUCE

SEND US YOUR ENQUIRIES

The
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Ottawa - Canada
Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

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FOR LUMBERMEN

Belting Our long experience in the making of Rubber Belts enables us to specialize on this line. "P.M.S.," "Special Drive" and "Lion" are our leading brands for power transmission.

Packings "Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable.

Hose for Steam, Water, etc., in various grades, made especially to give satisfactory and economical service under different conditions.

Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion.

Gutta Percha & Rubber, Limited

TORONTO MONTREAL WINNIPEG REGINA SASKATOON CALGARY EDMONTON VANCOUVER

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

Head Office and Mills at:
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On I. C. Ry. 75 Miles East of Quebec City

Also Mills at:
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On Nat. Transcontinental Ry.

Ten Band Mills to Serve You

Mills and Railway Connections

Fredericton, N.B.	Railway connection	"	C. P. R.
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Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

Fraser Limited, Fredericton, N. B.

ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

RIGHT GRADES
QUICK SHIPMENTS

Canadian Western Lumber Co.

FRASER MILLS, B.C.

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SASKATCHEWAN
E. M. Simonson

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Dressed and Rough Spruce, White Pine and Banksian Pine

We make a specialty of transit dressing, re-sawing and ripping lumber in transit at our mills in La Tuque, P. Q., located on the Canadian Northern and Transcontinental Railroads.

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Sales Office: PORTLAND, MAINE

Plant of The Stearns Salt and Lumber Co.

Stearns Quality

Michigan Forest Products

Hardwood, Hemlock, White Pine

LUMBER and TIMBER

40 Million Feet Dry Stock in pile containing a complete assortment for rush shipment.

Grades— GUARANTEED —Quality

Hardwood Specialists

The Stearns Salt & Lumber Co.

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LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK

POPLAR ASH

Yards at—Nashville, Tenn. Basic, Va.

Mills at—Sumter, S.C. Winchester, Idaho

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

WISTAR, UNDERHILL & NIXON

Real Estate Trust Bldg., Philadelphia, Pa.

New **RAILS** Relaying

12 to 80 pounds per yard.

LOGGING CARS

Jno. J. Gartshore

58 Front St. West, Toronto

The Rat Portage Lumber Co., Limited, Vancouver

MANUFACTURERS OF

Douglas Fir, Spruce, Cedar and Hemlock Lumber

Rough Timbers, Dimension, Flooring, Ceiling, Siding, Interior and Exterior Finish of all kinds including Mouldings. Fir, Spruce and Cedar Lath

Prompt shipment of Fir timbers in all sizes and up to 80 feet in length

AIR DRIED CEDAR SHINGLES We specialize in supplying air dried Cedar Shingles, these cost more than kiln dried Shingles but make a better roof and last much longer

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Grant & Campbell

Manufacturers of
SPRUCE, HEMLOCK TIMBERS AND PILING AND LATH

Prices promptly given on all enquiries.

New Glasgow, N. S.

HARDWOOD
Spruce, Pine, Hemlock,
Lath and Shingles
Crating Lumber a Specialty
JAMES R. SUMMERS
Wholesale Lumber Merchant,
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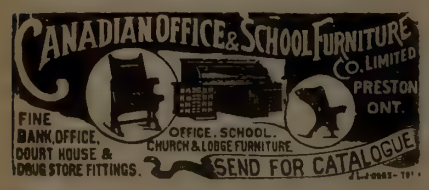
Lath Wanted
We are Buyers of
ALL GRADES
WHITE PINE, SPRUCE and HEMLOCK LATH
Will contract for entire output and pay spot cash
Send full particulars as to grade, quantity and prices
FRED. J. STONE
DETROIT - - MICH
Reference Bradstreets

DR. BELL'S
Veterinary Wonder Remedies
10,000 one dollar ($1.00) bottles Free to horsemen who give the Wonder a fair trial. Guaranteed for Colic, Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 25c for Mailing Package, etc. Agents wanted. Write your address plainly. DR. BELL, V.S., Kingston, Ont.

LATH TWINE
Tie your lath with Laidlaw wire. It saves you money. It means satisfaction to the dealer and contractor.
Write for Quotations.
LAIDLAW BALE-TIE CO., Ltd.
HAMILTON, ONT.


CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
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FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE. SCHOOL. CHURCH & LODGE FURNITURE.
SEND FOR CATALOGUE

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When in the market for

White or Red Pine

or for

Ontario Hardwoods

Let Us Quote You

SPECIAL !

200 M' Good Clear Squares

8 x 8—10/16
8 x 10— "
10 x 10— "
10 x 12— "

We are ready to contract for Output of Mills in any Ontario Soft or Hardwoods. Highest cash prices paid, and would advance money for operations.

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

705 Excelsior Life Building
Toronto

FOR SALE
75,000 ft. 1 in., 1¼ in., and 4 in. Birch, log run, mill culls out.
Good dry stock, 1915-16 sawing.
750,000 ft. 3 in. Spruce, 1917 sawing.
Prices on application:—
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HAEBERLE LUMBER CO.
LUMBER AND TIMBER
White Pine, Norway, Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties,
Yellow Pine Timber a Specialty.
Interior Trim Mill Work
NIAGARA FALLS, N.Y.

WHOLESALE DEALERS
Eastern and Southern Lumber
We are at all times in the market for dry
WHITE PINE, DIMENSION SPRUCE, SPRUCE BOARDS, HEMLOCK BOARDS, LATH and CLAPBOARDS.
Advise us of your Market Prices and Stocks
A. H. Richardson Lumber Co.
176 Federal Street, BOSTON, MASS.

Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion
"SALADA"
Send for samples and prices.
SALADA TEA CO. TORONTO

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Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding
James Gillespie
Pine and Hardwood
Lumber
Lath and Shingles
North Tonawanda, N.Y.

Efficiency Demands

Exact knowledge of where your lumber is and how much it runs to the acre in every spot. Our Density Plans show it. Operators are enthusiastic about them. Write for a sample.

JAMES W. SEWALL
OLD TOWN, - MAINE

PRESSES

Hydraulic and Screw
for
VENEER
VENEER DRYERS
PULP
Special machinery made to order
WILLIAM R. PERRIN
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Appraisal of timber lands, timber maps, logging efficiency reports, planting. Maximum of accuracy in minimum time and at minimum expense.
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Cable Address: Farnworth, Liverpool
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2 Dale Street, Liverpool, and Seaforth Road, Seaforth, Liverpool, England

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Hardwood Lumber
Handles
Staves Hoops
Headings
James WEBSTER & Bro.
Limited
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London Office
Dashwood House 9 New Broad St. E. C.

"Well Bought is Half Sold"

FOR QUICK SALE

we offer these

"SNAPPY SPECIALS"

2 cars 1 x 4 and up No. 2 common and better ash.
2 cars 1 x 4 and up No. 2 common and better Elm.
1 car 1 x 4 and up No. 3 common elm.
1 car 6/4 x 4 and up No. 1 common and better Elm.
3 cars 1 x 4 and up No. 1 common and better birch.
5 cars 1 x 4 and up No. 2 common birch.
2 cars 3 in. sound birch hearts.
½ car 4 in. sound birch hearts.
1 car 4 x 6 sound birch hearts.
3 cars 8/4 No. 1, 2 and 3 shop white pine.
3 cars 5/8 x 3 and up 6/16 ft. merch. spruce.
3 cars 1 x 3 6/16 ft. spruce crating.
2 cars 1 x 4 and up 6/16 ft. spruce crating.

Send Us Your Inquiries for :
Lath
Shingles
Cedar Posts

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine
Hemlock
Hardwood
LUMBER

712-20 Traders Bank Bldg., **Toronto, Ont.**
Mills : Byng Inlet, Ont.

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MONTHLY LIST
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NEW and USED
WOOD TOOLS
for Immediate Delivery

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42" Fay & Egan power feed.
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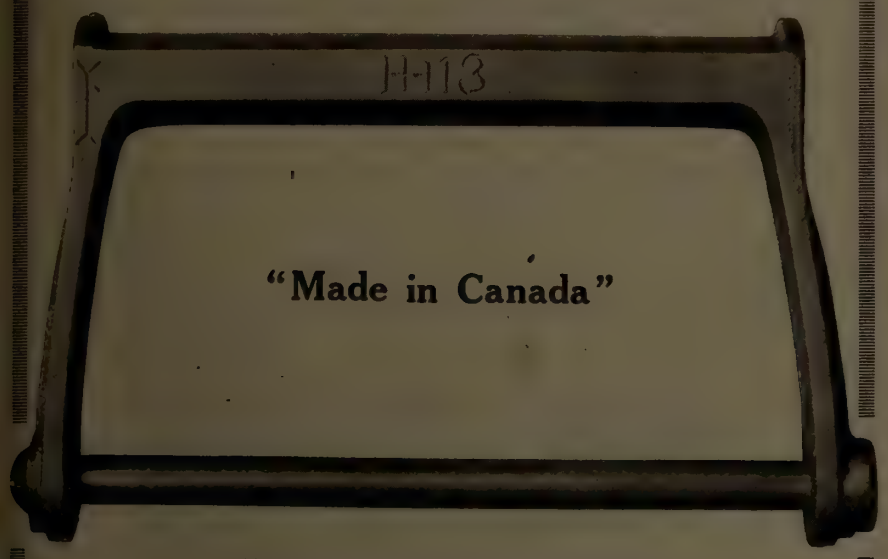

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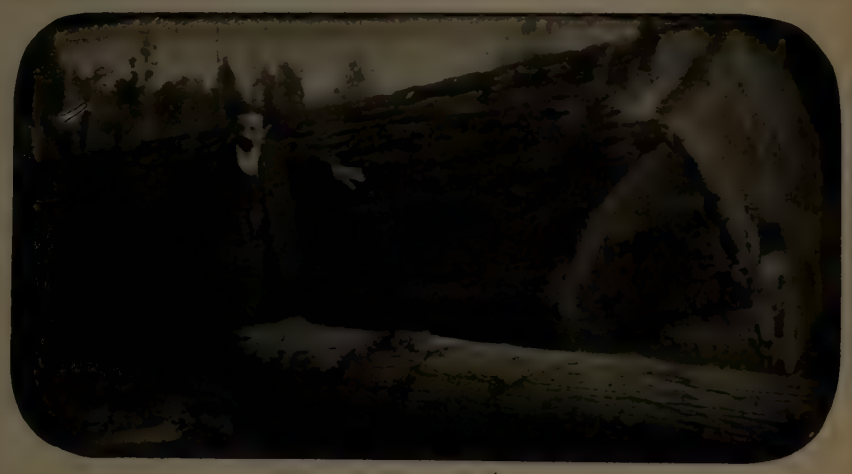

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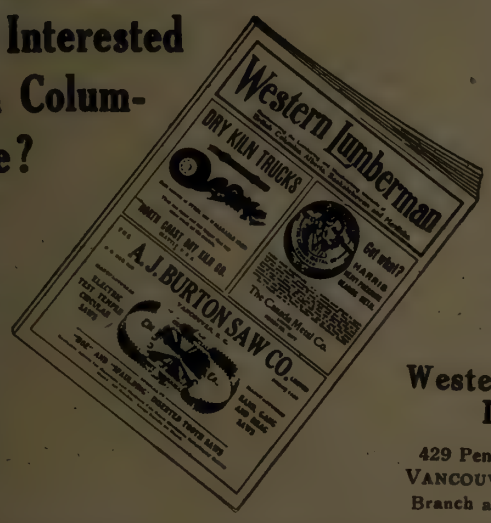

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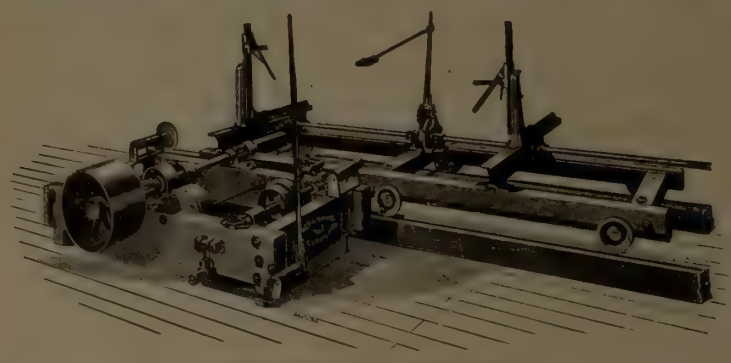

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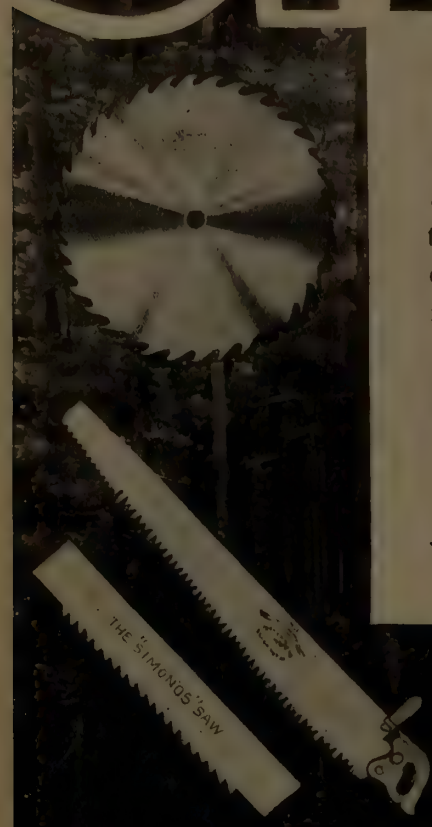

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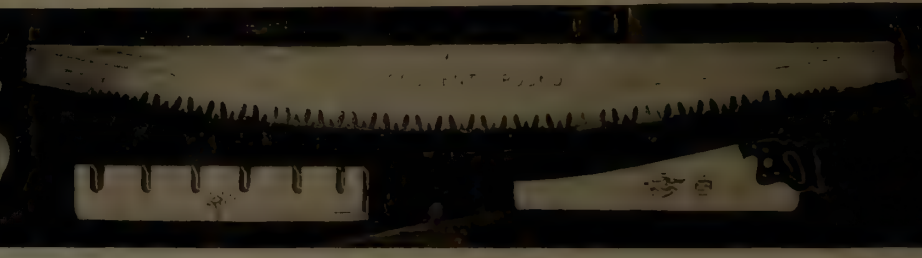

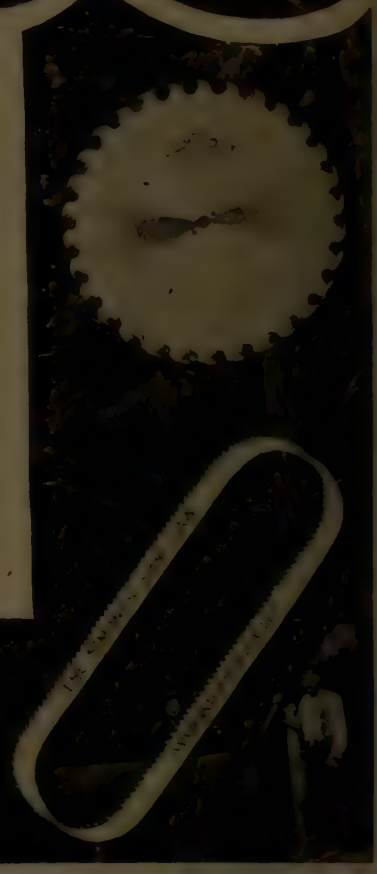

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

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Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N. Y., under the Act of Congress of March 3, 1879.

Vol. 37 Toronto, May 1, 1917 No. 9

British Columbia Shingle Situation

Nearly every time we have gone to press with our fortnightly issues lately we have been advised that the prices of British Columbia shingles have advanced. Just after the publication of the issue of April 15 another advance of 30 cents a thousand was announced, and those who handle the red cedars were unable even to guess what the price a fortnight later would be. The British Columbia shingle situation, in fact, has been a difficult one for some time, and, from the information we now have, there is no relief in sight.

The best way in which we can outline this situation is by reproducing an advice received during the third week in April by a Toronto wholesaler from a shingle mill in British Columbia, the product of which it handles in the East. This advice, in the form of a bulletin, reads as follows:

Prices.—We have decided to withdraw all prices, and the reasons are mentioned below. We are willing to do this, and we hope the plan is one that will meet the approval of your customers. You can accept orders with no price or prices attached. A week prior to the time that we will be in position to make shipments we will write to customers and tell them what the price or prices will be. It will then be their privilege to accept or decline. With conditions as they are, this is surely a proposition that ought to appeal. There is no fixed price for any kind of shingle, and there will not be one, either up or down, for some time to come. No one knows which way the cat is going to jump. Logs are apt to jump a dollar a thousand in the price, and whenever there is a change of a dollar thousand in the price of logs there is a change of 12c a thousand in the price of shingles, based on XXXXX.

Operations.—We are not making any shingles, and we don't know when we will. At one of our mills we have several thousand cords of bolts within two miles of the mill. These have to be passed through a creek which is not a creek at present, nor has it been for several months, because there is no water in it. At our other two mills we use logs, and we have not a single log at either mill. There are plenty of logs in rafts fifty to a hundred miles from Vancouver, but they cannot be brought here because of the very rough weather outside of the Gulf of Georgia.

You will see from the above that it is impossible to say when we will be in a position to operate our mills again. We guess it is needless to say that all this is very discouraging to you, but we certainly cannot control the elements. A number of the other mills are in the same fix, and if this weather continues a week or so longer a great many more mills will be down.

Shipments.—We do not have any shingles on hand. If we were in a position to begin cutting to-morrow it would be twelve days to two weeks before we could ship the first carload. We have orders for 78 cars on our books. We can cut and ship all of these within thirty days from the time we start our mills, but, as stated, we do not know when we are going to start. We are sending a copy of this bulletin to every customer who has an unshipped order placed with us.

General.—Lots of people are inclined to think the mills have raised prices beyond all reason. We ask you to please look at the enclosed chart, and you will immediately see the story it tells. This was made up from last year's operations, and prices on everything have jumped much higher since the first of the year.

In the face of this report, it does not look as though Eastern shingle consumers can look forward to much relief at present. The fact that in Eastern Canada there are definite signs of improvement in the building trade makes it probable, moreover, that the demand will increase, so that the whole situation indicates continued strength.

Shingle manufacturers in British Columbia explain the situation partly by a reference to the increased cost of production. The chart referred to above states that in 1916 logs and bolts cost 40 per cent., or 36 cents per thousand shingles, more than in 1915. Labor increased in cost by 20 per cent., or .09c per thousand shingles. Mill supplies cost 66 per cent. more, or .06c per thousand shingles. The total increased cost of production in 1916 thus shown amounts to 51c per thousand shingles. During 1916 British Columbia shingles advanced in price by 24 per cent., or 45c per thousand shingles, and there was lost, therefore, a margin of profit amounting to .06c per thousand shingles. On a total production of 1,900,000,000 shingles by the mills forming the shingle agency of British Columbia this loss amounted to $114,000.

With experience of this kind, and with the production difficulties outlined in the above bulletin, the decision to ask higher prices, and even to refuse business, is explained. Further developments will be watched closely by the large consuming trade in Eastern Canada.

Inter-Insurance in Canada

In view of the interest which is being manifested in the insurance investigation going on in the Province of Ontario, under Chief Justice Masten, at the direction of the Ontario Government, and the probable early passage of amendments to both the Provincial and Dominion insurance acts, it is desirable that the attention of lumbermen should be directed to some of the salient features affecting their interests in connection with fire insurance.

With a view to anticipating possible legislation which might seem to be prejudicial to lumbering interests the Canadian Lumbermen's Insurance Exchange was organized by a group of lumbermen about two years ago. With the facilities afforded by this exchange at the disposal of the lumbermen a means has been provided by which large lines of insurance can be obtained at a minimum cost to the policy-holder, with the advantage of having the insurance in an organization under government supervision and free from the present unfavorable conditions imposed in the case of companies not registered in Canada, which involve reporting to the insurance departments of the respective provinces, in addition to the payment of a tax upon premiums and a further tax of 1 per cent. on the gross loss in the cases of such companies operating in the Province of Ontario.

While the result of the present provincial investigation is problematical, there is no doubt that some attempt will be made to equalize the burden of taxation between the companies already licensed in

Canada and those operating without supervision of the Dominion Government or any form of contribution toward superintendence maintenance. In any event, the conditions suggest the wisdom of fostering and encouraging a Canadian insurance organization devoted to the interests of the Canadian lumbermen instead of depending entirely upon favorable legislation or the willingness of the lumbermen in the United States to contribute such facilities to the benefit of Canadian lumbermen.

There is being developed at Ottawa, in accordance with this idea, a bureau where the lumbermen can secure adequate protection at favorable rates consistent with absolute security. We believe that this effort on the part of a few lumbermen in Canada to provide such insurance for all whose risks are eligible to this form of indemnity should not only meet with the approbation of the other lumbermen, but receive the hearty co-operation and support of all the members of the trade. In addition to the brokerage facilities of certain stock companies which the office at Ottawa is specially representing, the Canadian Lumbermen's Insurance Exchange, through its attorney-in-fact, has a wide connection with the lumber specializing companies in the United States, which enables it to furnish Canadian policy-holders with policies in that organization, fully secured by the indemnity provided by the Lumber Mutuals that have operated so successfully for the past twenty years on the other side of the border. In order to extend the facilities of such mutual companies to lumbermen under a policy of the Canadian Exchange it is only necessary to provide a deposit in the form of government war bonds sufficient to cover the reserve required by the insurance department, equivalent to 50 per cent. of the premiums reinsured with such unregistered companies.

It was decided at the last annual meeting of the Canadian Lumbermen's Association to raise an amount of $30,000 in the form of war bonds for this purpose. A portion of this amount has already been subscribed, and it is desirable that any lumbermen who have not already contributed to this deposit should take advantage of the recent issue by the Dominion Government, which offers a good investment in addition to providing an opportunity of taking part in a patriotic undertaking. Moreover, these bonds, when deposited with the Canadian Lumbermen's Exchange, will be promoting the interests of lumbermen by making possible the development of mutual insurance in Canada, thus putting the lumbermen of Canada in a more independent position regarding insurance than they have ever been in before.

These bonds—amounting to $1,000 each—will be deposited by the Canadian Exchange, and the regular investment earnings provided by the government will be remitted to the subscriber at the stated interest dates, so that in reality, by subscribing in this manner the lumbermen will be making no sacrifice, but will help to promote the interests of the exchange and, at the same time, assist the Canadian Government's war loan. To obtain full information upon this important matter we suggest that those of our readers who are interested should write to E. D. Hardy, attorney-in-fact for the Canadian Lumbermen's Insurance Exchange, Booth Building, Ottawa.

Inter-insurance is not sufficiently understood by the majority of lumbermen. In fact, the lack of understanding in connection with this matter has often led lumbermen to oppose it in a manner which is really detrimental to their own interests. There is no mystery about inter-insurance, and no mystery should be made of it. It amounts simply to an agreement between insurers of a definite class to indemnify one another proportionately to the amount of their deposits in case of fire loss. The deposit is not arbitrarily fixed, but is determined after inspection of the subscriber's plant, and is based upon the amount of insurance which he is to receive. The deposit thus made is held in trust, and is even kept in a separate account to the credit of the depositor. It may be considered practically as a deposit in the subscriber's own bank account, with authority to the attorney-in-fact of the Inter-insurance Exchange to call upon it from time to time as necessity develops. Of course, it is really deposited with the attorney-in-fact himself and is under his control, in accordance with the regulations of the exchange. In short, an inter-insurance exchange is nothing more or less than an association comprising a certain number of individuals, corporations, firms, or partnerships, that agree to carry their own insurance, or such part of it as they may determine, through a medium or form of exchange of indemnity. The attorney-in-fact simply acts as trustee for the funds placed in his care, and the actual insurance against loss is thus obtained by the subscribers at the lowest cost consistent with absolute protection.

Retail Lumber Associations

While it is still impossible for us to announce anything in the form of a new organization of retailers in the Province of Ontario, we believe that the association idea is taking deep root with the trade, and that unquestionably the near future will see the formation of a progressive association of this nature. What we have already been able to publish in the way of comment from the trade upon this subject indicates a decided change in the general feeling along this line, and promises results, just as soon as some retailer with a little more ginger in him than the rest takes it upon himself to set things going. We hope that those who are concerned in this matter most deeply will not let much time slip by before making a start, as it will probably be a long time before they will again find conditions equally favorable to those which prevail to-day, when the need is clearly evident, and the retailers themselves have more time on their hands than usual to give the situation the attention it requires.

We publish in this issue an article written by the secretary-treasurer of the Southwestern Ontario Retail Lumber Dealers' Association, dealing with this situation. The writer of this letter knows from experience what the benefits of association work are. He is a retailer himself, and has had sufficient experience of the trade, without association assistance, to show him—now that he is a member of an active organization of this kind—how greatly the members can assist one another. Reading over his article, we believe that retailers will be impressed most forcibly by the point which he makes near the end of his argument, namely, that instead of giving contractors special discounts, the retailers should charge them more for their stock than they charge others, because of the fact that the credit risk is usually greater. This is a new angle from which we have not formerly seen the subject discussed, but one which should appeal strongly to every retailer.

This is only one small feature in connection with association work. It suggests that there are possibilities of reform that many retailers do not yet realize. Probably the chief field for reform lies in connection with the study of cost accounting. Getting at one's costs is really the chief subject discussed in the article referred to above. If one does not know his costs, how in the world is he to get along He cannot expect that Providence will consider him in a special class by himself. Providence will not look after the retailer who does not study the cost problem. Sooner or later he will go out of business, after giving the best years of his life to it, and having nothing to show in return. It is all a matter simply of self-preservation, and a reasonable business man might be expected to view it as such from the moment he commences business on his own account; but for some reason which we cannot understand many a man is so unbalanced by the fact that he is at last in business for himself that he fails, at the outset, to make a business-like study of the accounting details of his office, and, once having made a false start, it becomes increasingly difficult for him, from day to day, to get back on the right road. We do not mean to imply that every one of the retailers who is not a member of an association is in this unfortunate class. Many retailers are doing business along successful, business-like lines, but they have to face competition from the other retailers who are not doing so, and who, therefore, set the pace for all the rest whenever there is a possibility of getting into competition for trade. Those who have to struggle against this competition should be the most ready to organize an association. The others—the men who are taking chances by not knowing their costs, and are giving quotations in connection with

which they have not a proper knowledge as to whether they include a profit—may be hard ones to convince in the association campaign, but the force of example will bring most of them to time in the end.

An Ontario association of retail lumbermen would probably commence at once to make a study of operating costs. In a few months each of the members would know more about the cost of doing business than he had learned in all his previous years of trade, and then, without any illegal combination to enhance prices or to restrict competition, they would, as a matter of common sense, steadily raise their ideas of prices until they reached figures which made it possible for them and for their competitors not only to secure a fair profit, but to have the satisfaction of knowing that their competitors were also getting enough for their stocks and their work to enable them to pay their way.

Spruce Supplies in Great Britain

The Timber Trades Journal, London, England, in its issue of April 7, referring to stocks of spruce in Great Britain, says:

"Spruce supplies in this country are dwindling to very small proportions, but fresh purchasing is just as unattractive to importers as are contracts for European wood. As the sellers cannot book up tonnage except at rates which make the import cost to the buyer as high or higher than the prices at which he is allowed to sell, there is nothing to be done, for the sellers have no ideas whatever of making the necessary reduction in the f.o.b. price. With Atlantic tonnage in such great demand, there seems, therefore, little prospect of rates being reduced to a level at which business will be profitable, and importers are beginning to ask themselves seriously whether the authorities realize what the position will be in two or three months' time if foreign suppiles are not then coming forward. The government has, as is well known, large stocks on hand, and possibly has reason to believe that its demands for wood will not be so extensive during the summer months; but it is only on this assumption that matters can be allowed to drift. The American markets are becoming more and more interesting to importers, as unless a great change comes over the shipping position and the Baltic is opened, the European export prospects are not very bright, and greater calls will have to be made on America.

"As time passes by it seems to become more manifest than ever that the importation of spruce in any magnitude is doomed. Were it not so, a start ought surely to be made by now in the formulation of some workable scheme, however difficult the problem may be, covering future cargo supplies, and in the procuration, where possible, of neutral sailing ship tonnage for that purpose. The words 'where possible' are particularly essential in view of the freight outlook generally and the apparent desire of neutral owners not to run undue risks with their boats; but should official countenance be given to an adequate trading price, sufficient to allow of a compensating freight to be paid, there is no saying but what a few vessels, at any rate, might be encouraged to enter into a charter from the deal ports. That such trading should be permissible, even on restricted lines, is the feeling of many operators, in spite of the belief said to exist in government circles that stocks in this country are ample for the various needs. With the monthly details of stock now requested the director of timber supplies has first-hand knowledge of exactly what is in the possession of traders as a whole, and the information thus obtained will show a vastly different position to that gleaned from the customary monthly stock charts of the trade generally; but, notwithstanding the possibility of there being enough spruce in the United Kingdom to be going on with, a limited importation after all might prove a blessing in disguise, and so obviate any question of an absolute bareness of the market of a commodity so essential to the national requirements. Except as regards the open Canadian ports, the chief stocks of which have long since been disposed of, only a short shipping season is available in which the goods can be lifted, and little short of disaster would result were it to be found out too late that fresh importation must be resorted to. That some firms are anxious for further supplies seems evidenced by the keenness displayed to secure whatever liner parcels are on passage, and by the no mean enquiry for any suitable stocks remaining in the hands of the shippers' agents. The spot market continues bright, and the monthly figures just issued show an improvement in the rate of consumption."

In a discussion of the tonnage question the Timber News, London, England, in a recent issue says:

"The government have not yet taken over all the boats under British registry, but very soon there will not be many steamers outside the control of the Ministry of Shipping. This department, in fact, has already plainly stated that 'it is now rapidly extending the sphere of requisition over the whole of the steamships in the possession of the country.' From this announcement it would appear that sailing ships are not liable to be requisitioned. If this is so, and sailers are actually allowed to trade 'on their own,' it does not seem quite fair on the owners of steamships, but perhaps it is only an omission on the part of the Ministry of Shipping.

"Steamers, it is true, are of more consequence than sailers in such times as these, but when one realizes that there are thousands of sailing vessels of British nationality, the 'slow carriers' ought not to get off 'scot-free.' It is not so many years ago that the sailing ships named in Lloyd's Register outnumbered the steamships. A very important part of our trade, therefore, is carried on by means of sailers. Now that it is the intention of the Ministry of Shipping to take control of all the steamers in the country it is to be hoped that they will also take control of the rates. They will doubtless do so at a fairly early date, though it may be necessary to postpone such action until the whole of the boats are secured. So far as the timber trade is concerned, no rates of freight have yet been fixed, but importers are nevertheless hoping that in any case a limit will be put on all wood freights. The restrictions of imports will, of course, greatly affect freights, as there will now be more room available. In addition to this, shipbuilding is making rapid strides, thanks to the governmest adopting the standardized system of building merchant vessels."

London Adopts Superficial Foot Measure for Flooring

The last few months have seen the gradual deposition of the "customary square" as the unit for selling floorings and matchings in London, Eng., and the establishment of the "hundred superficial feet" in its place. Among the merchants, where once the old-fashioned, irregular, and illogical customary square was universal, the alternative measure has been recognized, and among the price-lists recently issued by London importers a substantial proportion have adopted the new measure.

Government Assisting Shipbuilding Industry

A despatch from Ottawa states that the government has decided to loan to the Imperial Munitions Board a sum of $10,000,000, to be used in promoting the construction of steel vessels in Canada, and that orders have already been placed for ships in Canada up to the full limit of the steel plates available during the next fifteen months; also that orders will be given for a large number of wooden vessels, which will be built chiefly on the Pacific Coast. It is also reported that specifications and designs of the standard type of wooden vessels required have been agreed upon between the Imperial Munitions Board and the reepresentatives of the British Government.

Acting in co-operation with the Forest Products Laboratories of Canada, Montreal, some contractors have taken steps to test, by means of a hygeometer, the moisture in the air of new buildings, so as to determine whether the buildings are sufficiently dry for the placing of fine interior finish, without liability to damage from the absorption of moisture by the walls. One of the contractors has also made measurements of moisture in kiln dried material for the interior finish, checking up the drying conditions.

New Brunswick Cedar Shingle Troubles

Manufacturers Believe Market Conditions are Encouraging, but Claim that Profits are Seldom Possible—Where the Difficulties Lie

Contributed specially by an Eastern Lumberman

After a prolonged period of lean years, the New Brunswick white cedar shingle industry appears to be approaching more prosperous times. During the 1915-1916 season, stocks, particularly in the higher grades, were practically sold out, and this year some manufacturers have already withdrawn prices and ceased booking further business until they can get their sawing well under way and so clear up part, at least, of their accumulated orders.

This welcome revival in an industry which many had come to regard as belonging to the order of disappearing things is due to a number of causes, chief of which is the merit of the white cedar shingle as roofing material. Skilful advertising of patent roofings has done enormous damage to the shingle industry in the past, and farmers and others have been hypnotized into the belief that they and their belongings could not possibly rest secure under any cover other than one of the many shingle substitutes flooding the market. The anti-shingle campaign still goes its way, but the cold fact is emerging that, while patent roofings come and patent roofings go, the cedar shingle holds on for a life-time, and in every respect offers better service than its higher-priced competitors.

The Shingle's Many Good Qualities

Without casting any reflections upon the merits or demerits of the "other roofings" it may be said that the charges laid at the door of the cedar shingle have not been proven. In first cost and durability it can beat easily any other material. In ease of manipulation, repairs, etc., it is a long way first, while from the artistic standpoint there is absolutely no comparison. So far as the fire risk is concerned, it has been demontsrated again and again that there is no safety at any time except in an adequate outfit of fire-fighting appliances.

It is necessary to refer to the foregoing points in order to emphasize the fact that the New Brunswick shingle revival is not based upon caprice or "fashion," or accident, but is due entirely to the merits of the shingle as an effective roofing material which can be relied upon to render consistently good service. This factor in the case is important, because it demonstrates that the manufacturers can, if they will, put this product upon a firm and permanent basis. With an intrinsically good article to market, manufacturers should have no difficulty in taking advantage of the wider demand and using it to build up an enormous business. Fortunes are not made by exploiting novelties so much as by pushing the trade in common or garden articles.

While it is true that the shingle industry has not paid dividends of late years, it is none the less true that the merits of the shingle have been demonstrated in the fires of competition. There should be no difficulty in maintaining this superiority, now that better prices are coming in, and the lumberman will have only himself to thank if henceforth he allows the "other roofing" fellow to beat him out.

Grading Difficulties

Improved and bigger trade can, however, only be gotten on a quality basis. Good stock and good manufacture must be maintained at the maximum. Most of the big operators in New Brunswick are members of the Canadian White Cedar Association, whose rules as to grading are rigidly adhered to, and it is a rare event for any dispute to arise on this point. Unfortunately, however, New Brunswick shingles have suffered through the badly manufactured product of small, ill-equipped mills, which care less for reputation than returns. The owners or operators of these small outfits, some of them portable, are concerned only to clean up a cut and then pass on to pastures new, where the operation is repeated. This method is not one that makes careful grading possible, and the result is a steady stream of indifferently made shingles passing into the market and bearing the "New Brunswick" brand. In too many cases these waifs and strays do not maintain the reputation which the shingle manufactured under more stable and satisfactory conditions has given to the province. Undoubtedly the New Brunswick shingle has an enviable record, in spite of the foregoing, and cases have been known where manufacturers within shouting distance of the province, but on the wrong side of its border line, have found it to their advantage to brand their bundles "New Brunswick."

The badly-graded shingle is an evil hard to eliminate, as there is no method of control that can be exercised over the small mill, but much has been done by way of registered brand names to guide buyers in search of a genuine, up-to-grade article. The grades observed in New Brunswick are six in number, and are known as extras, clears, second clears, clear walls, extra No. 1's and No. 1's. The proportion works out 50 per cent. extras and clears, 25 per cent. second clears, and the balance in the lower grades. The great difficulty is to dispose of the lower grades, which it is practically impossible to move except at less than bargain-sale figures. Some manufacturers have endeavored to mitigate the evil by refusing to book orders which did not specify a certain proportion of the lowest grades as well as the best, but with indifferent success. Unhappily, the cedar does not lend itself to the tender mercies of the pulp mill, and this recent eliminator of waste in the lumber industry does not extend its powerful aid in this particular direction. It seems reasonable to suppose, however, that if the shingle manufacturers set themselves seriously to the task of educating the consumer in the merits of their product it would be found that the lower, as well as the higher, grades would move more freely.

The Contract System

Co-existent with the rise in demand comes an increase in the cost of production. The causes for this have been given many times in connection with other branches of the lumber industry, all sections of which are suffering from enhanced expenses. What the end of soaring costs will be none can tell, but it will not come quickly. Under normal conditions the cost of producing shingles is larger in proportion to their selling price than other items of lumber, owing to the greater handling required and the covering sheds called for. Some firms have managed to effect a slight saving through contracting out their manufacture of shingles. It has been found that where a contractor undertakes to find his own sawyers and bundlers these men will generally work better for a "pal"—one of themselves—than they will for the concern. The gang are paid by results and where, as often happens, they comprise fathers, sons, uncles, nephews, and cousins, the family tie is found to be a powerful stimulus in aiding production. Some concerns have found this utilizing of the "gang" or "clan" instinct a decidedly good move.

Where the contract system is in force, the contractor undertakes to do all the work under the company's supervision, inspection and branding excepted. This exception is an indication of the care taken to maintain grade. The contractor receives the cedar logs on the log deck of the mill and delivers the shingles in the yard shed, on scow, on dock, or car, as may be required. He further provides to attend to all repairs to machinery throughout the season, with the exception of repairs on carriers and on the large belts under the floor. He is also required to conform strictly to the demands of manufacture and grinding.

The lumber company, on the other hand, give a fixed rate per M. for all shingles delivered according to contract. They pay their own inspector to receive and brand the goods at the mill, and they assume all responsibility in the matter of accidents. They further supply all materials necessary for the repairs called for by contract, and also saws, oils, knives, emery wheels, binder straps, and nails necessary to the proper operation of the mill. This arrangement has worked with perfect satisfaction to both parties, and has been found to be a solvent of labor trouble, as well as a reducer of costs.

The market for New Brunswick shingles is confined almost exclusively to the United States and Canada. A ready outlet is found in the New England States, in Quebec, and Ontario, in addition to the immediate home market. What little export business by water there may be is confined practically to Barbados and the British West Indies. This market is likely to be curtailed, if not cut off entirely, this season owing to lack of tonnage. Under normal conditions it is hard to see how an export trade of any dimensions can be worked up, but just at present the matter is not even within the realm of remote possibility.

Better Shingles To-day than Formerly

Editor Canada Lumberman:

We note with pleasure that the cedar shingle industry is to have some well deserved publicity at your hands.

We note the points as made by the New Brunswick manufacturer. He is about right in the statement that there has been no money made in the shingle business of late years, and we might add that the business has never shown a sufficient return to the manufacturer for the capital invested and trouble and labor involved.

We do not, however, agree with the statement that cedar shingles are manufactured to-day in a slip-shod manner, below the standard of some years ago, but on the contrary, we believe that the majority of old established brands, which have been selling on the market for years, are receiving the best attention at the mill, and were never so well manufactured and graded as at the present time. A number of years ago there were a very large number of

small one and two machine mills scattered over the country, and to a great extent these small mills were responsible for the trashy shingles offered on the market, with the result of keeping prices down in order to get rid of their stocks. These small mills are today practically out of business, mainly owing to not being able to procure the cedar logs, and the consequence is a great improvement in the quality of stock offered to the trade, by the larger mills.

The American market, as a rule, absorbs the two higher grades, Extras and Clears, with a percentage of Second Clears and Clear Walls. The balance of these two latter grades along with the Ex. No. 1 and No. 1, comprising what are known as the low grades, are sold in the Canadian markets, at prices below the cost of production, and we believe the manufacturer would be much better off if a good part of these grades went to the furnace, instead of being offered for sale.—Yours truly, Shingles.

Troubles Handicapping Eastern Shingle Industry

Editor Canada Lumberman:—

We note that you intend publishing an article on the shingle situation. We are pleased to hear this and trust you will be successful in stimulating some interest in the shingle industry, and will point out to the users of shingles the serious danger of the industry becoming extinct, owing to the many handicaps it has to contend with. The manufacture of shingles has not been profitable by any manner of means, and of late years the substitution of patent roofings of one kind and another, together with the restrictions put upon the use of shingles in so many towns and cities has given the industry a further black eye. The result is that many manufacturers have gone out of the business and others contemplate doing the same thing. If there is not a decided revival in the use of shingles and also an increase in the prices that have prevailed in the last few years, you will certainly see the shingle business die out entirely.

We will answer the points raised in your former article:

1. It is absolutely true that no money has been made in the shingle industry during the last four or five years, and many of the manufacturers have actually lost money.

2. We believe that many have not been able to make ends meet, and that many of the manufacturers have come out behind.

3. Most shingle mills are run in conjunction with the sawmills where spruce and other lumber have been sawn, and after charging up nothing at all against the shingle operations for power, light, etc., there has been no profit shown on the shingle end.

4. It is quite true that the New England market wants to buy only the two better grades, Extras and Clears. They usually take a few 2nd Clears and Clear Walls, but these are grades which they buy only in very small quantities. They buy the higher grades and leave the lower grades on the manufacturers' hands, which have to be marketed at give-away prices.

5. It is also true that a great many of the manufacturers do not make shingles properly, the work being done in a slip-shod way, and when they go on the market they set the price for the better grades. This offers no encouragement at all to the manufacturer of a good shingle well put up.

6. The cedar forests are certainly fast disappearing, and, as indicated above, unless something is done to conserve the cedar, very soon there will be none left in the eastern part of Canada at least. As it is, many manufacturers are putting their cedar logs into other purposes. Cedar ties are in strong demand, and many mills are figuring on disposing of their logs in this direction. —Yours truly, White Cedar.

White Cedar Shingle Manufacturers Have a Hard Time

Editor Canada Lumberman:—

There is a good deal of truth in what your New Brunswick manufacturer states:

1. We have made no money on our shingles during the last four years—just barely coming out a little better than even.

2. I cannot say anything at all about firms just making shingles alone, but I cannot see how they could make money, because, in New Brunswick, our stumpage is high on cedar, and with a hard scale.

3. As regards the spruce manufacturers operating shingle mills, I do not know of anyone who has made big money. Whatever money is made on spruce, some of the profits have to be used to balance the shingle account.

4. It is true that the New England markets will only take extras and clears, and our lower grade shingles do not realize as much money as they ought to.

5. The question regarding poor manufacturing I would not say much about, as opinions might differ.

6. There is no question at all but that cedar forests are being depleted, and that cedar is not as plentiful as it was years ago.—Yours truly, Manufacturer.

Quebec Retail Association Officers

The officers of the Quebec City Retail Lumbermen's Association, recently formed, are as follows: L. Canac-Marquis, president; N. Gignac, vice-president; J. O. Chalifour, secretary; P. L. O. Gagnon, treasurer; J. H. Gignac, Joseph Lefrancois, and Louis Hamel, directors.

Enlarging Their Eastern Selling Staff

C. J. Brooks, Toronto

It is only a comparatively short time since Mr. Charles Plant opened an office at Toronto for the Vancouver Lumber Company, Ltd., Vancouver, B.C., in order to handle their trade in Eastern Canada. This trade has now become so extensive that the company find it necessary to make an additional appointment, and in future Mr. C. J. Brooks will be associated with Mr. Plant in looking after the Western trade. Mr. Brooks will devote himself chiefly to the trade in Quebec and the Maritime Provinces, and his headquarters will be with Mr. Plant at Toronto. Mr. Brooks is thoroughly acquainted with the products of the Vancouver Lumber Company, and knows their merits in detail. He has been with the company for the last six years in different capacities connected with shipping, logging, manufacturing, etc., and is thoroughly posted on all the different branches of the company's business. We are pleased to be able to pubilsh a portrait of Mr. Brooks and to wish him success in his new field of work.

Finds Trade Abnormal at New York

J. M. Donovan Reports Great Strength in Spruce and Hardwoods—Keen Competition in Basswood

Mr. J. M. Donovan returned to Toronto recently, after a two weeks' visit to New York. While in New York Mr. Donovan reports that he was much impressed by the abnormal situation existing in the lumber trade, and by the great strength of the market for spruce and hardwoods. Discussing the situation, he said:

"Merchantable spruce is being held very firmly by the wholesalers, who have pretty fair-sized blocks of Canadian stock on hand. Quotations to the retail yards are ranging from $35 to $38 and $39, according to size; 1 x 12 in. merchantable spruce, which is being quoted at $38 at Quebec mills, is bringing $44 to $45 at New York.

"The demand for birch is very strong, and there does not seem to be a great deal offering. The quantity of birch taken out of the Adirondacks this year has been greatly reduced, and firms who have any of the stock are quoting high prices. Canadian birch 5 x 4 in. to 8 x 4 in., first and seconds, unselected, is bringing $58, while common sells at $48 at New York. For 2½ in .and 3 in. the price is $67 to $69 for first and seconds, and $10 less for No. 1 common. There is a strong demand for 4 in., which seems to be very scarce, and nice stock will have no trouble in commanding $75 for first and seconds and $65 for No. 1 common.

"The interior trim trade is quiet, and many manufacturers who cater to this business are practically at a standstill. The furniture trade is active; also the piano and talking machine business.

"Basswood conditions are such that Canadian manufacturers and wholesalers can secure higher prices for this wood in Canada, as the competition from West Virginia for basswood is pretty keen. The railroads are becoming less congested, and a fair number of cars are sifting through and being delivered, the embargoes having been raised on stock destined to New York.

"Vessels for trans-Atlantic trade are not plentiful, of course, and those that have any space offering are getting anywhere from $100 to $125 per ton for general cargo. One firm of shipping brokers whom I visited are contemplating taking some vessels from Lake Superior and Lake Huron to New York, by way of the canals. These vessels will have to be cut in two and put together again upon arrival."

Mr. Beale Visiting the Prairies

Mr. L. B. Beale, British Columbia Lumber Commissioner at Toronto, left on April 18 for a trip to the Prairie Provinces, and may extend his journey to the Pacific Coast. He will be away for some weeks, and during that time will investigate trade conditions on the prairies.

W. F. Schaphorst, M.E., advertising engineer and author of technical articles that have been published in the Canada Lumberman, has established an engineering advertising service office in the Woolworth Building, New York City. He will devote his attention chiefly to the business of manufacturers of high-grade engineering products.

Spruce and Pulpwood Production Costs

An Analysis of Figures Recently Furnished by Contributors to the "Canada Lumberman"— Higher Figures Given by Another Producer

In the Canada Lumberman of April 1st we published an article dealing with the cost of producing spruce at New Brunswick sawmills, and in our issue of April 15th, in reply to an enquiry regarding the cost of felling and peeling pulpwood in the province of Quebec we gave figures furnished to us by one of the largest pulpwood producing firms in that province. These two sets of figures are pecularly interesting to the industry today, and after looking them over very closely an Ontario manufacturer, who is also associated intimately with spruce production in Quebec province, has furnished us with his opinions regarding these figures and regarding the producing industry as he finds it.

Referring first of all to the figures given by our correspondent in our issue of April 15th, regarding the cost of felling and peeling pulpwood in the province of Quebec, this manufacturer expressed the belief that the figures were not sufficiently high. In the first place, it was stated that the average daily wage in connection with the pulpwood operations under discussion was $1.25 per day. This figure, the Ontario manufacturer advises us, is much too low.

"I do not know any place in Ontario or Quebec," he says, "where you can get laborers for less than $50 a month and their board. Taking the average month as 25 working days, this figures out at $2 a day for wages, and board for the full month would be at least 60 cents per day instead of 40 cents per day, which is mentioned by the Quebec manufacturer.

"Next comes the cost of supervision, which, it seems to me, must be similarly advanced above the figures given. If he is figuring his supervision on the same basis as the cost of the work, he is probably just as much below the mark. If you put a gang of men into the bush to peel pulpwood they will turn out, as he states, about a cord and a quarter per day. This would probably have cost you for wages and board about $2.80. I really don't believe you could get it even at that figure.

"The next item included is the cost of the camp per cord, which is placed much below the figure that we use in connection with our camps. His figure for tools per cord looks to me to be just about right.

Camp Operating Costs

"I have not definite figures in front of me from our operation reports, but as near as I can place it, trying to be accurate and conservative at the same time, I think that the following would be a more reasonable analysis of the costs of felling and peeling pulpwood today:—

Average daily wage	$2.00
Board per day	.75
Supervision per cord	.10
Cost of camp per cord	.05
Tools per cord	.05
Total	$2.95

"You will see that this means an advance of $1.13 per employee above the figures which the Quebec operator furnishes. Reducing this to a percentage basis, it becomes an advance of 62 per cent. In reality, therefore, you would have to estimate 62 per cent. more per cord for the felling and peeling cost. His figures show $1.50 per cord. This increased by 62 per cent., or 93c, becomes $2.43.

"Now you must bear in mind that this estimate is based upon the wage problem in connection with operations in the woods in the winter time. You cannot get labor in the summer time for the same money, because it costs much more to feed the men on account of the greater wastage. In addition, the men will not stay in the woods for the same money, on account of the flies. Therefore, I think, that the figures given are really too low by about $1 per cord.

"The further costs of getting the pulpwood to the mill are important. The pulpwood would cost on an average of $4 per load in the woods. To this we will have to add $1 for taking it out and loading it, and another dollar for Crown land dues. These bring the cost up to about $5.25 per cord.

"It seems to me, however, that we have not even yet taken into consideration all that we should in connection with the wages problem. We have put it down on a basis of $2 a day, which really is not right, because a man today can get from $2.50 to $3 a day for his services around a mill yard or in a sawmill. When he is working there, moreover, he has not to contend with the flies, and he lives either at home or in a boarding house, which makes it more acceptable to him. Therefore, I think that the probable basis on which to figure wages is $3 a day. Add to that 75c per day for board, 30c for supervision, camp costs and tools; that brings you up to $4.05 as against $1.82 mentioned by the Quebec operator. There you have an increase of about 123 per cent. Add 123 per cent. to $1.50 and you get $3.35 per cord, which is the cost of the pulpwood felled and peeled.

Further Costs in Manufacturing

"Then when we carry the operations further we must add the cost of trimming and cutting the logs into lengths and piling them. This will amount to about $1.15, bringing the cost to about $4.50 per cord. Drawing it out to the track will cost 75c and loading it will cost 35c, bringing the cost to about $5.60 per cord. Crown dues amounting to 25c make the total $5.85. This is the price that must be covered in selling the pulpwood before the man who owns it begins to get anything for his timber. You will see, therefore, that before he can feel that he has obtained a reasonable price for his stumpage, or anything for his overhead expenses, to say nothing of profit, he must obtain at least $7 per cord.

Spruce Lumber Costs

"The figures given in the Canada Lumberman of April 1st for the cost of producing spruce lumber in New Brunswick seem to me to be far more reasonable. The writer of this article places stumpage and mileage at $3.25 per thousand feet, which is conservative. Browing, he estimates at $7.60, which is low. I would really say that $8.50 is not too much for this item. Driving and rafting, he places at $2.50. I do not think there is any question about this being a reasonable charge. Sawing, mill up-keep, etc., are placed at $3.60. Piling, insurance and handling he places at 90c. These two together, I think are from 50c to 75c per thousand feet below what they should be.

"Office and selling costs, he places at $1 per thousand feet. He surely cannot run an office and sell his lumber for $1 per thousand feet today. I do not think anybody else can do it. If he said $2, he would be closer to the mark. He has one item in his analysis with which we do not have to contend in Ontario. He quoted log under-run at 80c. We have no under-run in Ontario, but sometimes a little overrun. This would make our costs about $1.70 per thousand feet more than his, leaving out of consideration that we might have a little overrun to offset against that."

A Quebec Manufacturer's Report

Another extensive spruce-producing company in the Province of Quebec, after reading the articles in the Canada Lumberman, advise us that during the past winter there was a tremendous demand for pulpwood, and that it was very difficult to get stocks. At present they say it is impossible to quote an average price, on account of the unprecedented conditions existing, which cause prices to vary greatly from day to day, depending largely upon the number of buyers actually in the market. As high as $21, they report, has been paid for peeled wood. An arrangement was recently made, they say, by which a set price of $8.50 per cord was fixed by them with certain producers, based upon a standard shipping rate of 14 1/12c. This, however, was subject to a proviso that, at points where the shipping rate was less a higher price should be paid, amounting to 45c for every reduction of 1c in the freight rate. For instance, if the rate was 13 1/12c the price would be $8.95, instead of $8.50. The result was that in some instances the wood cost them over $12 per cord on the cars, the company having to pay the freight to its mill. The price last year was about $6.50 per cord. In some instances, not connected with this particular shipment, freights were considerably lower than the 14 1/12c referred to, but invariably this was made up by higher prices asked for the wood. Taking everything into consideration, the 1916 season was a very difficult one for manufacturers, and to-day they are not able to make anything in the nature of a fixed quotation.

B. C. Lumber Carrier Off for Australia

The shipbuilding industry in British Columbia is commencing to show results. A large number of vessels for the lumber carrying trade on the Pacific Ocean are now being built and the first of these is already heading across the sea towards Sydney, Australia. The Victoria Lumber and Manufacturing Company, Limited, Chemainus, B.C., furnished the cargo of this vessel, which is called the "Mabel Brown." She is Canadian built and motor-driven, and carries 1,534,000 feet of lumber consigned to Sydney, for the Government of New

South Wales. The "Mabel Brown" is built throughout of British Columbia Douglas fir and is pronounced to be the best built boat entering the harbor at Chemainus in the past thirty years. She loaded in ten days and will get to Sydney in about forty-five. Her freight on the cargo is $45,000.

The Mabel Brown was constructed by the H. W. Brown Company, Ltd., of Vancouver, B.C., owned and managed by Herbert W. Brown. Four boats have now been launched by this firm, the Mabel Brown having been the first to take the water. Between 25 and 30 ships of the wooden type are now under construction at Vancouver. They are rigged as bald-headed five-masted schooners, and are equipped with two 160 h.p. engines of the Diesel type. The cargo space is said to be about 95 per cent. of the whole. The general dimensions of the vessels are 44 feet wide, 21 feet deep, 225 feet keel, and 265 feet over all.

British Columbia Timber Royalties

Government Inspectors Investigating Wholesale Prices in Accordance with Sliding Scale Regulation

Inspectors of the forestry branch of the British Columbia Land Department are making the first inspection of the mills of the province, as provided by the Timber Royalty Act of 1914, which became effective in 1915. No inspection was made last year, and the return will cover 1915 and 1916. The officials will verify and check the total of lumber sold at wholesale, and ascertain the amount realized on an f.o.b. basis. The check will show the average wholesale selling price of lumber and enable just determination of the annual royalty to be made.

The following sections of the act, which became effective January 1, 1915, give a general idea of the method by which royalties are determined:

"There is reserved to and for the use of His Majesty, his heirs and successors, upon and in respect of timber cut upon crown lands, and upon lands held under pre-emption entry and record, and upon any lands granted subsequent to the 1st day of March, 1914, royalty as follows:

"For a period of five years, beginning with the first day of January, 1915, a royalty of 85 cents per 1,000 feet, board measure, upon all timber cut, in that portion of the province west of the Cascade Range, and suitable for the manufacture of lumber and shingles, and graded under the provisions of this act as No. 1 or No. 2 Douglas fir, No. 1 or No. 2 spruce, No. 1 or No. 2 cedar, No. 1 or No. 2 pine, or No. 1 or No. 2 cottonwood, and a royalty of 50 cents per 1,000 feet board measure upon all other timber suitable for the manufacture of lumber and shingles; during the same period of five years a royalty of 50 cents per 1,000 feet board measure upon all timber suitable for the manufacture of lumber and shingles cut in that portion of the province east of the Cascade Range which lies south of the Dominion Railway belt, or within the watershed of Seymour Arm and Adams Lake, or within the watershed of the North Thompson River, south of the junction of that river with the Clearwater River, or within the watershed of the Columbia River, excepting the watershed of Canoe River.

"During the same period of five years a royalty of 65 cents per 1,000 feet board measure upon all timber suitable for the manufacture of lumber and shingles cut in any portion of the province in respect whereof provision is not otherwise made in this section of this act.

"For a period of five years from the 1st day of January, 1920, the foregoing royalties shall be increased by an amount equivalent to 25 per cent. of the increase (if any) in the average wholesale selling price of lumber, free on board point of manufacture, above $18.

"For a period of five years from the 1st day of January, 1925, the royalties provided in this act shall be increased by an amount equivalest to 30 per cent. of the increase (if any) in the average wholesale selling price of lumber, free on board point of manufacture, over $18.

"For a period of five years from the 1st day of January, 1930, the royalties provided in this act shall be increased by an amount equivalent to 30 per cent. of the increase (if any) in the average wholesale selling price of lumber, free on board point of manufactur, over $18.

"For a period of five years from the 1st day of January, 1935, the royalties provided in this act shall be increased by an amount equivalent to 35 per cent. of the increase (if any) in the average wholesale selling price of lumber, free on board point of manufacture, over $18.

"For a period of five years from the 1st day of January, 1940, the royalties provided in this act shall be increased by an amount not to exceed 40 per cent. of the increase (if any) in the average wholesale selling price of lumber, free on board point of manufacture, over $18.

"For a period of five years from the 1st day of January, 1945, the royalties provided in this act shall be increased by an amount not to exceed 40 per cent. of the wholesale selling price of lumber, free on board point of manufacture, over $18.

"For a period of five years from the 1st day of January, 1950, the royalties provided in this act shall be increased by an amount not to exceed 40 per cent. of the increase (if any) in the average wholesale selling price of lumber, free on board point of manufacture, over $18."

Timber Owners Have Bright Outlook

Future Promising for Those Who Own Limits—A Big Demand Coming for Canadian Lumber

By W. L. Keate, Vancouver, B. C.*

What about the future for British Columbia timber? Why has so comparatively little B. C. timber changed hands during the past five years? What is the answer? Show me a man who could convince an operator or investor that standing timber was a good investment, considering the prices obtained for logs and lumber during the past several years, and we will have a salesman par excellence.

Much has been written and talked of regarding substitutes for wood, and no doubt substitutes have taken the place of woods to a certain extent, but in so far as this side of the line is concerned, a good deal more money has been spent in wild speculation than ever will be spent on wood substitutes, money which should have gone into the general betterments; farm buildings, warehouses and necessarily lumber and timber.

The world has been coming down with war sickness longer than we knew; it had had the "walking typhoid," and we have been wondering what was the matter with business. Well does the writer remember spending May 24, 1912 (a public holiday on this side) with a camping party and with us was a gentleman associated with a large London banking house out here at the time on a special mission. This man told us how conditions would become worse and worse; how this war would come, and advised us all to trim our sails for a storm. We put him down as a rank pessimist at the time. How true his predictions were we all know now.

The big buyers during the past several years have been curtailing their purchases to the utmost for reasons which are now very apparent.

However, this is all of the past. The farmer has forgotten all about double corners on Easy Street—quarter cash, balance 6, 12 and 18 months, sure to double in value before second payment comes due. He is getting down to causes and is going to figure how many bushels of wheat he can get off this quarter at $1.50 and praying to the good Lord potatoes will hold up at $3.00 until he can get his spring crops in, and all of this real effort means new houses and barns.

The big buyer of lumber is commencing to loosen up. It finally looks as though we are "out o' the woods" for a considerable period.

The renewed activity in our saw and shingle mills—due to better business and also to the excellent advertising campaign carried out during the past few months by the West Coast manufacturers in letting the consumer know what we have to sell—will have a lasting and beneficial effect.

During the year 1916 our log production in the Coast district of British Columbia was 883,323,000 feet, not very much compared with our neighbor to the south, but an increase of about 29 per cent. over 1915 for British Columbia, and this year will show a still further increase if the labor shortage does not become too serious.

This greater demand for logs is sure to have an effect on stumpage values, and will increase the stability of timber as an investment.

Working as we do in connection with an excellent governmental policy, British Columbia timber is safe. Government rangers patrol the whole country to guard against fire and trespass. Our carrying charges and royalties are fixed on a fair and equitable basis for the next forty years.

We are hearing a great deal now about the tremendous demand for lumber from Europe after the war. No doubt there will be a great demand, but at the same time let us not overlook our home demand. This continent of ours is going to be the grocery store of the world for years after the close of the war. Attracted by high prices of produce, thousands of acres of new lands will be put under cultivation; it is commencing now and is gathering momentum every day, all of which means train-loads of lumber and shingles.

That the demand for lumber products during the next five years will be unprecedented we have every reason to believe, and no good reason to disbelieve.

So far as our timber resources are concerned, we haven't started as yet to manufacture in earnest, but in my opinion our production will increase four fold during the next decade. Lumber, shingles, pulp, piling, are all showing an increase now, and surely this increased activity in the finished product will have its effect on stumpage.

The holders of good tracts of British Columbia timber have good reason to feel confident of the future.

High Spruce Prices Encouraging Hemlock Trade

The Samuel B. Sisson Lumber Company, Inc., Syracuse, N.Y., report, under date of April 23, that the trade situation has not changed to any great extent during the last fortnight. Canadian spruce, they say, is so scarce and so high in price that a very large number of dealers are to-day buying hemlock.

* Reprinted from the West Coast Lumberman.

Ontario Retailers Require Association

Cost Accounting and Mutual Protection Against Loss Only to be Handled Efficiently by Co-operation—Distrust and Jealously Serious Trade Drawbacks

By B. F. Clarke*

Too much emphasis cannot be given in the lumber trade press to the fact that the conditions existing in the industry and trade to-day are such as to make co-operation not only important, but necessary. With the retail dealers this is notably the case. In Ontario the retail lumber trade has never been organized, and the dealers have never worked together for their mutual interests. The whole trade is in a backward condition and suffers greatly because of this failure to co-operate. One only needs to consider for a few moments the situation in other trades to realize what this means. Every other line of business is organized closely. In our negotiations with other trades, therefore, we are subjected to the modern business methods adopted by other associations, while in our own trade the lack of co-operation leaves everything at loose ends and makes it impossible for us to secure from our business efforts anything like the profits or results that should be obtainable. In fact, we do well if we come out even.

The managers and owners of lumber yards in Ontario ought to talk these matters over with one another and effect an organization without delay. The most important matter for them to tackle, and a matter which cannot be continued in its present shape indefinitely without danger to everyone in the trade is the problem connected with knowing one's cost. By co-operation the retail lumbermen would soon be able to appreciate more fully what their costs are and to price their stocks in a way which would leave them free of doubt regarding the existence of profit. Education alone—which comes quickly with co-operation—will enable dealers to realize the position they are in, and show them the importance and the methods of keeping proper sets of books, so that they may know what it costs them to do business and how much must be charged in order to obtain a profit. Co-operation does not mean anything whatever in the way of secret agreements regarding prices.

The retail lumber trade have not to-day, and have not shown in the past any desire to obtain undue profits from their stock and work. If they had been influenced by such an ambition, even in their individual businesses, without any consideration of co-operating, they would long ago have developed more efficient methods of cost-keeping. That is to say, of course, those yards which we are discussing and which, unfortunately, include a great number of the small and medium-sized retail businesses in Ontario. Co-operation through the medium of retail associations will undoubtedly enable these dealers to ascertain their true costs more quickly than any other method. They will then be able to come before the public and lay their cards on the table face up, saying: "Here is what it costs us to do business. We have eliminated all the leaks. We are efficient in our managing. You must agree that we are entitled to fair and reasonable profit on the capital that we have invested. We have added this reasonable profit to the actual cost of our merchandise and the overhead costs connected with our business, and now you must willingly foot the bill if you want our goods and our service."

Have Themselves to Thank

It is our own fault that we retailers in Ontario have not been making a reasonable profit in the past. As soon as we investigate the reasons for this we notice immediately that we have been jealous and suspicious of one another, and that this uncalled-for attitude has encouraged us in our failure to estimate costs in a proper manner, while at the same time we have been either ignorant or deceiving ourselves in regard to gross profits. Market conditions to-day are quite abnormal, and our merchandise is costing us more than it ever did before, so that it is absolutely essential to study the situation carefully and to apply selling prices that will leave us on the right side, for if we do not, we will go more quickly into the hole to-day than we were likely to before the present conditions developed.

Organization has made enormous advances in connection with other lines of trade. Look around and you will find that everybody is organized except the retail lumbermen. Everyone we do business with is using his organization to enable him to handle us and the others in their trade efficiently. The banks are organized in connection with the rates of interest which they charge. Insurance companies are organized in regard to the premiums. Cities are organized to charge us taxes. Farmers are organized quite enough in connection with the prices of hay and oats. The railroad companies are organized for dealing with the freight rate situation and other charges which they make. The supply men are organized in connection with oil, belting, hardware, machinery, and everything else that we buy from them. Labor is organized to run up the pay roll. In fact, everybody is organized, with the exception of the retail lumber dealer, who is the goat, and has been the goat ever since the beginning of the trade.

The true benefit obtained from a trade organization, either in a country district or in a city, province, or state, is the value of collective thinking. An exchange of ideas among lumbermen benefits everyone who joins in the discussion, and it is one of those interesting undertakings out of which everyone is able to take more than he puts into it. But if we are to exchange ideas in regard to the lumber trade in Ontario in a way which will be of assistance to us all, we must at the outset overcome the suspicion, jealousy, and petty distrust that we, through the weakness of our human nature, have inherited from our predecessors in the days of the stone age, when every man expected that the other fellow would some day slip up behind him and hit him over the head with a stone axe. If we can first overcome this feeling of distrust and talk frankly and honestly with one another about our business we will each make progress definitely and quickly in the right direction, and this we will do without any suggestion of creating a combination in restraint of trade or any approach to an attempt at enhancing prices unduly. When we co-operate in such a manner, our aim is to develop a free discussion among ourselves, so that we may arrive not only at an understanding of the cost of doing business, but at a more definite and efficient knowledge of how to conduct our business in general, all of which will produce improved trade conditions, make our business a much pleasanter one, and enable us to obtain a fair profit instead of operating at a loss.

Ambitions Not Excessive

Our ambitions in the retail lumber trade are not unreasonable. If we can obtain a net profit on our sales of from 5 to 10 per cent. we are satisfied. If each one of us would bear in mind continually that his net profit on sales in the past has been less than 10 per cent., and probably less than 5 per cent., he would hesitate considerably before deciding to cut the price on a bill in order to take it away from a competitor. In short, our net profit is so small that we have no room to cut prices in the retail lumber business.

Bearing in mind that it is impossible for us to cut prices and still to make a profit, it becomes quickly apparent that we have no room for giving a cash discount of 2 per cent. We have no right to allow our customer the use of our money, free of charge, for two or three months. If we were making large profits this might be considered quite justifiable, but our net profits are cut right down to the bone, and are based on payment net cash monthly, for deliveries the previous

*Secretary-Treasurer of the Southwestern Ontario Retail Lumber Dealers' Association.

Hamlet and the Credit Question

To send, or not to send—that is the question—
Whether 'tis better to retain the goods
And so make sure of what is in possession,
Or let them go and run the risk of payment.
To send—to part with them—perchance to lose,
To lose, perchance the lot, ay, there's the rub,
For once they're gone, what skill can claim them back,
Or get the cash from slippery debtors,
What will be done when the account falls due.
Will cash be paid, or e'en post-dated check,
Or promise to remit be quickly made, to be as soon forgotten?
And then reminders—much like Thunar's blows—
Softly at first, though each with added force,
Yet no response, not e'en a cent, nor plaintive plea for time.
Will then "a meeting" end suspense—and hope?
A meeting packed, forsooth, with kinsmen dear,
All bent on proving claims for money lent,
Yet solaced by a shilling in the pound,
And that lean pittance fast in lawyer's grip,
Leaving us naught but sad experience.
Thus memory doth make cowards of us all;
And thus the growing need of orders
Is sicklied o'er with the pale cast of thought,
And business of great pith and moment
With this regard is sadly turned away,
Losing, perchance, great profits.

Reprinted from "The Ironmonger"

month. This does not apply only to the ordinary customer, but to contractors and others to whom many of us have been in the habit of allowing special discounts. Keep away from this way of doing business. Experience has shown that two prices in any line of business have never worked out satisfactorily. The retail lumberman should stand up stiffly for the principle of a one-price house. How are we ever going to be able to draw the line between a contractor, a speculative builder, or a man who buys his own material, and makes his own repairs? Each one of these might be classed as a contractor, and if we once start giving special discounts to contractors we will find it a difficult matter to refuse similar treatment to nearly all of our customers. In fact, why should we give any such preferential treatment to a man in the contracting business. Look at the matter closely, just for a single moment, and you will surely see that we ought to act in the very opposite manner, and charge the contractors more than others, because the credit risk in connection with their accounts is usually far greater than with those who are not engaged in the contracting business.

The Retailer and the Carpenter Contractor

By John H. Cowley.

The greatest business asset any retail yard can have is to be associated with an honest, wide-awake general contractor or intelligent, high-class carpenters. Fortunate indeed is the retailer who is thus situated. The retail dealer working with the contractor and carpenter forms an ideal combination for the distribution of building material to the consumer. The contractor knows just how much and what kinds of building material he will need; the retailer knows when and how to secure the same. There is no room for friction or antagonism between the retailer and the real contractor. Their interests are mutual to a certain degree. Working in harmony; they are enabled to serve the home-builder profitably and in a satisfactory manner, each feeling his responsibility and each striving to serve the customer faithfully and well.

The contractor is not only a benefactor to the retailer, in that he is the medium through which the retailer sells his materials, but he is also a benefactor to the home-builder, in that he supplies his expert knowledge of the material, plans, labor, and many other things of which the customer knows little or nothing. Not that the contractor is the only authority upon these matters; he is not. The retail lumber dealer of to-day, if he is filling his full capacity for usefulness in his community, and if he is striving to be all that he can be to his customers, is in a position to give first-hand information as regards all the material he handles.

The lumber-buying public have not as yet reached that stage of enlightenment where they are willing to recognize and treat the retail dealer as authority upon all these important matters. This is not as it should be. In buying a diamond the customer trusts his jeweler to the limit and is governed fully by his judgment. In buying an automobile implicit faith is accorded the words of the automobile dealer, etc. In building a home—and what more important transaction can be undertaken—very little, if any, consideration is given the retail lumber dealer other than to secure his prices on the stock needed. The average home-builder seemingly assumes that he knows more than the dealer regarding the material he is to use. Seldom, however, do we find the home-builder assuming this attitude toward the contractor. The latter is looked upon as an authority, and is usually given a free hand in all matters regarding the material and the building operations in general. In this regard the general contractor has proved that he is a better business man than has the retail dealer; the contractor tells the home-builder that unless he is to have full and complete charge he will not take the job. The retail dealer, fearing he will lose a little business, is usually willing to take whatever the home-builder sees fit to give him, and thus becomes a secondary influence in a transaction where, by rights, he should be the governing power. In this capacity the contractor thus becomes the clearing house for both the retailer and the home-builder. Thus the close relationship that should exist between the retailer and the contractor is readily understood.

Fill the Same Place as Contractors

In many localities there are carpenters who perform their work by the day and who do not enter into the contracting business. These men fill the same place in the building programme as do the contractors, and their relationship with the retail dealer is the same. There is always a place for the legitimate contractor, and the honest, capable carpenter in the retail lumber dealer's plan of distributing building material to the consumer.

The class of contractors and carpenters referred to above are men of standing and influence in their respective communities. They regard their professions with honor and believe in them. They also have a high regard for the retail dealer and his material. They ask only reasonable service from the local dealer, and do not seek to impose upon him because of their business associations; but on this account a feeling of mutual interest exists between them. There is, however, in nearly every community another class of so-called contractors and carpenters of whom the retail dealers are not so proud. We refer to that class of irresponsible contractors and "saw and hammer" carpenters, who are always asking favors, but who seek, at all times, to injure the dealer and do all in their power to bring his material into disrepute. These individuals use their profession as a means of gaining the confidence of the home-builder and then seek to hold up the retailer. After securing the job, they seek to discredit the local dealer and his material with the customer. They are always free to ask favors of the dealer and the customer alike, and they try to work their graft on a fifty-fifty basis. It is not going too far to say that by act, word, and deed this class of contractors and carpenters are a disgrace to their professions. They are always in debt to the local dealer. That they are a menace to the retail lumber business no informed dealer will deny. They are always telling the local retailer that they are the source of his existence; that, should they refuse to use his lumber, he would be compelled to go out of business. They are not, as a rule, competent to earn a livelihood by their labor, many of them having no ability for their line of work, and they cannot do it in a satisfactory manner.

Many retailers tell us that, where once the custom is established, it is almost next to impossible to get away from the reduction, or commission, that they pay their contractors and carpenters. That this is their fixed policy and that it applies to their legitimate contractors and carpenters. There is, of course, no remedy for this state of affairs outside of the co-operation of the local dealers. Let one of them pay a commission on this class of business and the bars are down, and, as a matter of course, the others will be compelled to do the same thing. The same principle applies as regards prices, the quality and character of the stock carried, etc. This is a fact readily understood by all dealers. We do not believe that a retail dealer should pay commissions to his contractor or carpenters. Not that we would antagonize this element, for we would not. We believe in giving everyone an absolute square deal. The amount of net profit now realized by the dealers of this locality will not admit of an allowance for the contractor. Again, the same weakness that is characteristic of the retail lumber dealers in so many different relationships in their dealings with the public is nowhere so vividly pictured as it is in the matter of allowing someone who has no financial interest in, and no concern whatever as to the success or failure of their business, to dictate what they shall receive for what they do sell. The retail lumber dealers have no one to blame but themselves for the conditions that have overtaken their business, and which render it harder and harder each year to make satisfactory profit showings. It is, of course, one thing to say what is best to be done and quite another thing altogether to get out and do it. We talk much at convention times about our business and how we may improve it—then we go out and fall into the same old rut as regards the conduct of our affairs. The scriptural injunction, "by their fruits ye shall know them," is just as applicable to the retail lumber dealer as it is to any other walk of life.

Again, we wish to emphasize the value of the legitimate contractor and carpenter to the retail yard and to welcome their aid and co-operation in helping to solve the problems that daily confront us; and to express our disgust for that class, of the same professions, who bring nothing but disappointment, loss, and discontent to the retail lumber dealer.—St. Louis Lumberman.

Shantymen's Christian Association

The ninth annual meeting of the Shantymen's Christian Association was held at Toronto on April 16. The report for the year showed that the work of the association had reached 30,174 men during 1916, in the Prince Albert district of Saskatchewan, the Rainy River district of Manitoba, from Nipigon east to Sudbury, and from Sudbury to North Bay, with North Bay as the centre. During the year ended March 31, 1917, visits were paid to 685 camps, as compared with 355 in the previous year. The staff of the association tramped on foot in order to carry on this work, 1,775 miles. During the year they employed thirteen missionaries, as compared with eleven in the previous year. The subscriptions and collections received during the year amounted to $5,178, as compared with $3,313 in 1916. Officers for 1917 were chosen as follows: President, H. B. Gordon; vice-president, J. J. Gartshore; secretary-treasurer, R. D. Richardson; superintendent, William Henderson; directors: J. McClelland, John Firstbrook, Dr. W. H. Howitt, and Sidney T. Smith. The officers and directors of the general council comprise fourteen members from Winnipeg, Hamilton, Port Arthur, Ottawa, Montreal, and Toronto.

Mr. William Duncan, Sr., one of the oldest lumbermen in the province of Quebec, died at his home in Montreal, on April 16, aged 75 years. A Scotchman by birth, he came to Canada 55 years ago and entered the lumber business. He resided in Three Rivers, P.Q., Blythe, Ont., and Calumet, P.Q., and during the last twenty years in Montreal, where, with his two sons, Messrs. James and William Duncan, he conducted business as wholesale and retail lumber dealers under the name of J. and W. Duncan, Limited.

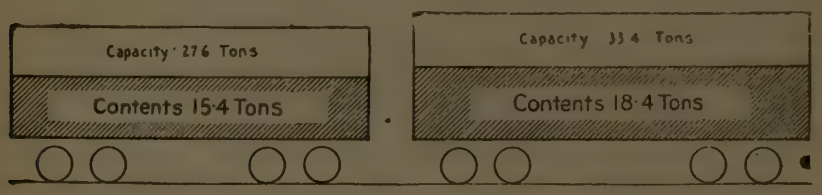
Fill the Cars

The Canadian Pacific Railway Company's press bureau, Montreal, have sent out an interesting circular, entitled "Fill the Cars," in which they say:

A little more co-operation between the merchants and the railways will do much to relieve the present freight situation. The railways are not trying to shift the responsibility on to the public, but are asking the public's help. Much more tonnage, for instance, could be handled with the existing locomotive power and terminal facilities if cars were loaded to capacity instead of being so often only two-thirds full. In the old days, when traffic was lighter, it mattered less to the railways if a shipper did not use all the space he paid for—that was the shipper's loss. But now it is realized that the extravagance of one shipper may cause delay to others owing to the limited amount of locomotive power and terminal facilities. The shortage is not so much in equipment as in train crews and labor in the yards and roundhouses. Anything which can help to secure quicker clearance and freer movement in the yards helps to speed up the movement of freight. Another drawback to the economical movement of freight is that a great many consignees order not the full carload of freight, but merely the minimum allowed under the classification. It would materially help to solve the problem if in placing orders consignees would order enough to fill a car to capacity instead of the minimum, which very often does not represent more than half a carload.

The question of the capacity of cars is itself the subject of investigation. The standard of loading grain, for instance, has remained the same for many years, but improvement in the engineering of cars has gone on steadily, so that the modern freight car can bear stresses greatly in excess of what was possible twenty years ago. The result is that there is prospect of considerably increasing the load line on quite a large proportion of freight equipment, thus increasing the train capacity without requiring additional train crews. Grain cars rated for 80,000 pounds are found capable of carrying over 90,000.

It has been figured that if the average load could be increased on Canadian railways in 1917 by five tons over that of 1915 this would be



equivalent to 54,800 additional cars, requiring no additional locomotives or man-power.

Canadian business men are, therefore, being urged to co-operate with the railways in their endeavor to increase the existing carrying capacity, by using to better advantage the present available rolling stock. Light bulky commodities, of which there are many, should be loaded to the full cubic capacity of cars. Heavier freight should be loaded to the full carrying capacity, which is 10 per cent. in excess of their stencilled capacity.

The following figures are taken from the Railway Statistics of the Dominion of Canada, issued by the Deputy Minister of the Department of Railways and Canals, and cover all the railways of Canada:

Note.—1907 is the first and 1915 the last year for which figures are available.

	1907.	1915.	Increase. P.C.
Total tons freight carried 1 mile.	11,687,711,830	17,661,309,723	51.1
Aggregate capacity of freight cars (in tons)	2,908,903	6,731,265	131.4
Total freight cars	105,540	201,690	91.1

The car capacity increased 5.8 tons. The contents increased 3.0 tons.

Forty-eight per cent. of the additional capacity provided was not used.

The public is asked to co-operate with the railways in an endeavor to remedy the existing car shortage.

It can be done by utilizing to better advantage the present available rolling stock.

By increasing the average car load to 23.4 tons or 5 tons more than during 1915 would be equivalent to the placing of 54,800 additional cars in service.

Light bulky commodities, of which there are many, should be loaded to the full cubic capacity of cars. Heavier freight should be loaded to the maximum carrying capacity authorized.

The Canadian Government Railway, Canadian Northern Railway, the Grand Trunk Railway System, and the Canadian Pacific Railway have issued notices restoring the application of original tariffs on lumber, lath, and shingles from points on their lines to New York, Brooklyn, Jersey City, and other points reached by water from Albany. The rates that applied last year are thereby made effective this season.

Credits and Terms of Sale

By G. W. Bulmer

It is not my intention to discuss the many and varied phases of credits and terms of sale as applied to the retail lumber business, but to confine my talk on these subjects to two practical suggestions. The first a method by which the credit rating of every one in a community can be quickly and accurately determined; and the second the establishment of fair and equitable terms of sale for both the cash and credit customer which will insure a definite understanding as to when payment is to be made. These two plans if put in operation, combined with a reasonable ability to judge the human element, which is a big factor in the extension of credits, should solve these two bug-a-boo problems of the retail lumberman.

The weak spot in the operation of the average retail lumber business is in the way we promiscuously extend credit to Tom, Dick and Harry without definitely knowing whether Tom, Dick and Harry are really safe gentlemen to extend this credit to, and we load out wagonload after wagonload of what we believe to be the finest lumber that ever happened and which costs lots and lots of real money to Tom, Dick and Harry, their uncles and their aunts, their sisters and brothers, without saying a word about when, how or where it is to be paid for.

Business usually picks up in the fall. We ought to have time to devote to this business but we haven't because of the fact that we have to get out and hustle after our share of the crop money before it is all gone, and even after hustling like candidates for office from September to February and smoking out everything that looks like a loose dollar, we find that 40 per cent. of our previous year's sales are still on the books and we figure we have fought a good fight, but have been whipped to a frazzle once more, and so in admiration we take off our hats to the butcher, the baker and candlestick maker because they had been wise enough to find out if good old Uncle Tom had the wherewithall to pay—and if he hadn't, promptly told him that there'd be nothing doing in the way of credit unless he put up security; so the County Clerk was as busy as a nailer recording securities in favor of those wise guys, and the lumberman had the pleasure of watching them carry off not only the cream, but the smear-case as well, and the lumberman humbly sneaked off with the whey. Now, gentlemen, I'm not going to take up your time talking about how much this gray-whiskered, bald-headed custom in the lumber business costs us; but, believe me, the accounts we wipe off the slate—the cost of collection—the legal fuss—the tying up of capital that we need so badly in our business—the weeping and wailing and gnashing of teeth—the tenographers we employ—the stamps and stationery we waste—the salaries of collectors and special help—the oceans of gasoline we burn in our little old cars amounts to a pretty penny at the end of the year and gathers into its vampire bosom a chunk of the gross profits of our business that would prove astonishing if we could ever put it in terms of actual dollars and cents. Here's another way it works out: A business that nets you $1,500 at the end of the year returns 15 per cent. net on an investment of $10,000, of which, an analysis shows that $6,000 is in stock and plant and $4,000 in accounts; so you smile a smile like a slice out of a watermelon and next year you get $1,500 out of that same little old business again—but behold, when you figure up your profit on your investment you find that you have made only 7½ per cent. out of the same business and the whole thing comes out in the wash when you find out that whereas you still have $6,000 in plant and stock, your outstanding accounts have jumped up to $14,000, or a total investment of $20,000. So your smile fades away into a scowl when you realize that your business is no longer a profitable one and you wonder if you're not getting old and consider selling the darned old business, lock, stock and barrel, and putting your money out at 8 per cent. on gilt edged security. And I'll bet you'd do it mighty quick, too, if it wasn't for the fact that half of your operating capital was borrowed. But that's another story, too, if you tumble to the fact that your borrowed capital costs you 9 per cent. and the best you were able to make it earn was 7½ per cent., or a net loss of 1½ per cent. in the shuffle.

I'm not going to take up a lot of your time discussing the ethical phases of this question, with which you are probably a lot more familiar with than I am.

But I want to say this—and I want to say it as loudly as I can—and I believe every man here will chime in "ab-so-lute-ly!" when I say that it's time the retail lumber dealers adopted, first, some kind of a system for the intelligent extension of credits; and, second, certain definite terms upon which our merchandise shall be sold—and sold on those terms only?

A year ago the Rogers-Templeton Lumber Company formulated what we call a "Credit Rating Report;" one side of this report blank bears the form of a very complete property statement, the other side is a blank form wherein the name and address of the person reported upon is inserted, as well as such general information bearing upon his credit standing. Below is a blank space on one side of which are listed all instruments and judgments recorded against him, and on

the other side we list all releases. This information is secured from bulletins published by the abstractors in business at the various county seats and the service costs $15 per year cash in advance or $24 per year on time. Even the abstractor, you see, knows the value of cash on the counter. We don't wait for trouble to happen, but as soon as a new man comes into a community we put his name down on one of these reports, as well as all the information we can get, and then watch the bulletins. He may be doing business with the "Enterprise Lumber Company" down the street and we don't know much about him except in a general way; but when finally he comes in to buy a granary bill on credit and we turn to our book for a look and we find his homestead mortgaged for $1,200, including an interest mortgage for $120, and a chattel mortgage on everything he has under the sun, including his two old nags, Tom and Jerry, hitched to a wagon with which he hopes to haul out our lumber, we can turn him down without batting an eye; and we don't even go to the trouble of having him sign the property statement unless we're curious to know if Ananias is really a back number when it comes to fancy fabrication. Our general report tells the story and we rarely use the property statement anyway, except when we're in doubt. So much for the information required for the intelligent distribution of lumber on a credit basis.

A year ago we were struck with the brilliant idea that we would establish definite terms of sale and stick to 'em till—Butte froze over. All bills were to be figured in our "Estimate Book." If the estimate was sold and cash paid on the nail, our proposition was to allow 5 per cent. discount from our retail price. If the customer bought on credit we proposed that he immediately sign a note, rate of interest 10 per cent.—no interest charged for the first sixty days if paid when due; and we figured to file a lien or demand other security for all notes where there was any doubt about the customer's ability to pay. Do you think we could put it over? Not on your life? If we had adhered to our policy the tumbleweeds would now be growing a mighty forest in the alleys of the "Q. G." lumber yards. So instead of putting into effect a plan that we felt sure would minimize our troubles, we went back to the old way of getting the purchaser to sign a contract properly, setting forth the terms of sale and taking notes for credit sales where we could get away with it. And instead of having what we hoped to have today, 90 per cent. of our accounts in the form of notes all bearing interest, we have a scant 50 per cent., and no hopes for the future. Your book accounts are smashing, telling blows on the solar plexus of your business. How long will the business stand it? Your customers are complaining, too, of high prices, yet your profit is only a very common, everyday profit indeed. The burden of accounts your business is carrying is almost entirely responsible for this condition.

Don't think for a minute that this plan is solely created to hang bells on the toes of the retail lumber merchant. I feel that what's sauce for the goose is Worcester for the gander. If this plan will safeguard you against loss from bad accounts, and will relieve your business of its handicap of tied-up capital, your operating cost will be less and your profits increased. But since no lumberman would be guilty of taking an excess profit out of his business, this saving in operating cost would be given back to the buyer in cheaper prices.

And do you think for a minute that it's a good thing to let the customer buy if it's going to be a hard job for him to pay? Is it doing him a favor to make it easy for him to go in debt for things that he could really do without and thereby keep his nose to the grindstone until you have made it sharp enough for him to ferret out a way to get out from under the burden, either through the bankruptcy court or by putting everything in his wife's name—or vanishing into the night to some distant land to repeat the practice you have taught him? No, sir; the merchant and his customer prosper or starve together. If your customers are prosperous, you share in their prosperity, and you will help them most by permiting them to buy conservatively of those things they need, and can pay for without breaking their spirits or their bank accounts.

One man or one firm can't remedy the situation—can't establish definite terms of sale. But if the retail lumber dealers through this organization would decide upon some system and put it into effect, I feel that it would be a huge success. And as I see it, it is a cinch that something of this kind must be done; because if you continue to load down your business with the handicap of the careless, inefficient methods of yesterday and enter in the race with the keener competition of today, something is going to happen—sure's you're here.

Let us figure out some system for the intelligent distribution of credits; allow the cash customer the discount he's entitled to; get a note from the customer at the time of sale with proper security where necessary; then let us put the plan into permanent effect, and I'll promise you that you'll grow fatter and sleep easier in the days to come and you'll find fewer gray hairs in your head and more profits in the bank when you size up your business at the end of the year.

Pacific Northwest Logging Costs

What B. C's. Competitors to the South Had to Pay During Normal Times Before the War

The cost of delivering logs into Puget Sound is analyzed in a report issued by the United States Forest Service and based upon information furnished by twenty Northern Pacific Coast camps. The figures are based upon normal times as they existed in 1913, and are as follows:—

Average Cost of Delivering Logs from Tree to Puget Sound

Per cent. of total output (approximate)	75%
Average year's output per camp, feet	45,000,000
Average day's output per camp, feet	200,000
Average fixed investment	$140,000
Average working capital	35,000
Average labor cost per M. feet	3.09

Cost Per M. Feet, Log Scale

1. Felling and bucking—labor		$ .683
2. Woods to car—labor		1.259
3. Railroad (spur) and pole construction, labor		.586
4. Train crews, labor		.206
5. Dumping and rafting (includes contract work)		.211
6. Supplies and maintenance (labor and material) of railroad, dump and boom		.177
7. Supplies and maintenance (labor and material) of equipment, tools, buildings, etc.		.307
8. Fuel of locomotives, logging engines, shops, etc.		.239
9. Wire ripe		.137
10. Depreciation, equipment and rails		.24
11. Depreciation main line railroad grade, boom and buildings.		.066
12. Scaling		.049
13. Return of boom sticks		.046
14. Log freight		.882
15. General expenses		
Salaries and commissions	.139	
Taxes	.029	
Industrial insurance	.096	
Sundry expenses	.076	.340
Total average cost per M., log scale		$5.428

This statement does not include the cost of stumpage, interest of any kind, discounts on logs sold, towage to mill or taxes on standing timber. It is intended here to include only the cost of transforming, transporting and sorting the logs, taking them to the point of sale for straight loggers. Stumpage and the taxes on timber are excluded, to be dealt with in a separate report. Discounts have been looked on as more closely related to realization than to cost of logging. Interest, whether on capital invested or on borrowed money, complicates the matter of cost and is most clearly considered as related to profit.

The classification of costs given in the statement should not be looked on as ideal. It is in fact an expedient. In collecting the data the classification of the companies was followed of necessity; later, in compiling the figures, they were thrown into the best groups that could be made. The main purpose was to arrive at an average total cost figure. This the segregated figures will serve to illuminate.

The aim was to make the statement self-explanatory, but brief additional explanation seems to be required. This will be clearer for a brief statement of the transportation relations of the camps.

The average haul by railroad to water is twenty-five miles, while four is the minimum. A few of the concerns have their own railroads reaching to point of delivery in the Sound, but most logs are hauled for a longer or shorter distance on common carrier railroads. Items 4, 11 and 14, with others in less degree, are materially affected by this fact, are of doubtful value when taken separately, and comparison of any one camp's cost with the average would have little point.

The term "Salaries" refers to the pay of superintendents and that of bookkeepers, etc., at main offices detached from the woods. Following the practice of many camps, the pay of foreman, camp bookkeepers and scalers, timekeepers, and other general help is thrown pro rata into the cost of the major operations, falling and bucking, spur construction, etc., and it is also included in total labor cost.

Item No. 2 includes the labor cost of yarding, roading, loading, moving engines, running out lines, building landings, pumping water, etc.

Number 3 includes the cost of building spur railroads, and the small amount of pole roads employed in this region. In some cases all the railroad used is taken care of under this heading, or as an operating expense. This has the effect of increasing this item above the normal charge and decreasing Classification No. 11. Item 3 was a hard cost to take care of for the additional reason that in some cases the costs from year to year varied greatly, due to varying conditions

in the "shows," to the time the work was done, and the method of accounting. Where this condition was found it was necessary to use a figure representing the average cost for several years rather than the cost for one year.

Number 5 includes the cost of sorting and rafting the logs, and some of the figures on which the cost was based includes the cost of unloading. Over one-half of the amount given in the classification was paid to boom companies who do the work at a fixed rate per 1,000 feet, the balance representing the amount paid to labor by the logging or lumbering companies.

Timber for Shipbuilding

Every local freight train on the N. T. R. is carrying east in carload lots spars and other special timbers needed in the construction of wooden ships, an industry which is experiencing a great revival at various points in the Maritime Provinces, says the Times of Moncton, N. B. Some of the shipments consist of heavy timbers to be used for masts and spars of wooden vessels. There is also considerable shipment of planking and wooden ribs for the vessels. The most curious part of the shipments, however, are the wooden "knees" which are really the crooked roots of trees, sawed into sizes suitable to shipbuilding purposes. These "knees" can be made from ordinary timber, but builders prefer the natural bend of the roots, which are very fibrous and tough. Quite an important part of present day lumbering operations is the digging up and cutting out of crooked roots suitable for this purpose. The small knees are used for bracing stem and stern posts and similar parts exposed to heavy strains.

Technical Advertising Brings Results

The value of advertising in the lumber field was brought home to the North Carolina Pine Association at its recent annual convention by the report on advertising and the other work of the promotion department. The association is convinced of the value of advertising, and its devotion of a part of the advertising fund to newspapers has been an important feature in the new field of lumber advertising to the ultimate consumer, a campaign now spreading through all the lumber associations of the country. The experimental work with the newspapers was in Sunday editions. Over 100,000 pieces of mail matter were sent to architects and contractors, and nearly 65,000 to retail lumber dealers. The answers received from advertisements were as follows:

From technical and special circulation magazines from March 1, 1916, to Feb. 28, 1917..	3,773
From Sunday newspaper advertisements ..	1,756
From farm paper advertisements	2,082

Oxy-Acetylene Welding and Cutting

In 1915 Mr. Hamilton Wright, for the New York Sun, visited the Panama-American Exposition, at San Francisco, Cal., to examine the entire exhibition and report on the most important features. In his summary he compared the Panama Exposition with the World's Fair at Chicago as being in exact ratio as the year 1915 is compared with the year 1893. Mr. Wright wrote a most interesting account of his investigation, in which he depicted twenty of the great world developments between 1893 and 1915. In this list of twenty he selected amongst the foremost oxy-acetylene welding and cutting, a tribute both accurate and well merited.

As late as 1905 the oxy-acetylene process was practically unknown on this continent. To-day it is one of the great industries, and is extensively employed by metal-working plants on a great variety of

Patch cut out of boiler by Oxy-acetylene process.

work. It has, to a considerable extent, revolutionized the manufacture of metal products, of steel cutting, and the methods of repairing broken and worn metal parts, of light and heavy sections. The invention is a product of France, and is generally credited to Le Chatelier, 1895. By 1901 it was further developed by Fouche and Picard, improved in 1903, and in 1906 brought into operation in the United States by Messrs. Davis and Bournonville, now known as the Davis-Bournonville Company N.Y., Jersey City, U.S.A.

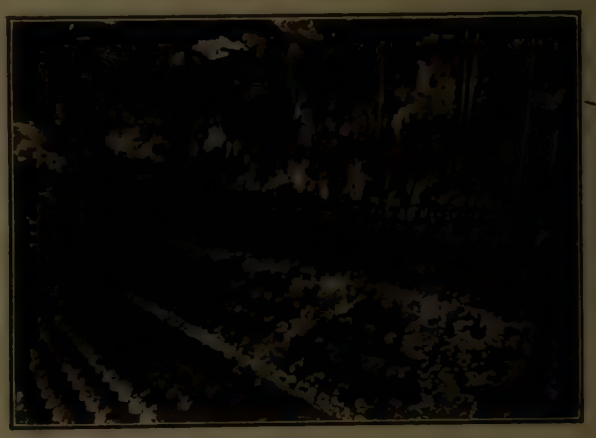
During the past ten years steady progress has been made in the development of this invention. To-day a complete standard stationary welding and cutting plant, which includes acetylene pressure generator, welding and cutting torches, regulators and indicators, hose and hose connections, colored eyeglasses, wrenches, etc., can be had promptly and at a reasonable price. Where metallic materials have to be united or cut, where broken castings have to be reclaimed, invaluable saving in time and money is effected, which should greatly overbalance the cost of such a plant.

Large portable outfits can be had, provided with pressure generators and mounted on four-wheeled trucks. The generators are specially designed for transportation, with automatic locking device, to prevent feeding mechanism operating when truck is moved. These outfits have special advantage in large works where it may be necessary to move the equipment frequently.

Small portable outfits for both welding and cutting can be had which use compressed acetylene in cylinders, instead of acetylene generator. These cylinders may be recharged at central compressing plants. A hand truck is provided with this outfit, accommodating acetylene and high-pressure oxygen cylinders, and welding or cutting unit, constituting a thoroughly practical portable outfit.

The Carter Welding Company, Ltd., Sheppard Street, Toronto, handle the Davis-Bournonville plants and outfits; also operating a general shop for welding and cutting all kinds of metallic materials, and for the reclamation of any sort of broken casting. This company quotes oxy-acetylene outfits of the small portable variety for light, medium, and heavy work at: Welding equipment, $150; oxy-acetylene cutting equipment, $150; complete equipment, $300, f.o.b. Toronto. This includes a thorough training of an operator, usually a two or three-weeks' course. Also tanks of acetylene, 12 in. diameter by 36 in. long, containing 225 feet of gas, at 125 pounds pressure, are provided at $4 per cylinder, and tanks of oxygen 8 in. diameter by 30 in. long, containing 100 feet of oxygen, at 180 pounds pressure, are provided at

An Oxy-acetylene welding shop.



Patch welded into boiler by Oxy-acetylene process.

$2 per cylinder, both prices being f.o.b. Toronto. The Carter Company will arrange exchange service on cylinders, ensuring an always available equipment.

An illustration of the work done by an oxy-acetylene outfit is seen in one of the cuts showing side sheet of boiler 18 feet by 4 inches, cut out in 15 minutes ready for new patch to be welded in. Another illustration shows the same side sheet of boiler with patch 18 feet by 4 inches welded in. The work was done in eight hours, at a total cost of $42. Jobs done under this process meet the requirements of government boiler inspectors.

Another illustration is shown, giving a view of a corner of a welding shop. The man with the torch is cutting boiler plate at the rate of 18 inches per minute, whilst another man is welding a lug on a steel motor case.

A New Order of Things Upon Us

The Retailer Who Really Wants It Can Get the Trade

By E. D. Ferguson*

A few weeks ago I had occasion to visit a small town dealer. I found him busy helping the drayman unload a car, so waited in the office for him to finish unloading the wagon. Then he came into the office; I introduced myself, and he must have thought I was a traveling man come to promise prompt shipment on some cars that would probably be loaded two months after the order was placed.

He extended a limp hand and kept his eyes on the floor.

We sat down and began to talk about business in general, and the fellow was getting interested, when a man came into the office and enquired if he had any locks, and the following conversation took place:

Dealer: "What kind of locks?"

Customer: "Door locks."

Dealer: "Door locks? Yes, we have door locks."

Meanwhile the dealer remained seated and looked enquiringly at the cutsomer, who was standing waiting.

After a few seconds watchful waiting the dealer seemed to realize that it was up to him, so he asked: "What kind of door locks do you want?"

I don't think he had but one kind, and from his actions I think he hoped the customer wanted the other kind.

The customer was persistent. He seemed determined to force that dealer to sell him a door lock. His next question was: "What kind have you got "

This question called for action. There was no way around it, and the dealer reluctantly rose from his chair with the remark: "Well, I expect I can show you maybe better than I can tell you."

Complained of Lack of Patronage

This dealer complained that people would go to neighboring towns for lumber when he sold it cheaper. I had occasion to drive out into the country and found lots of land being cleared and developed, and that one large land-owner sent his teams from within a half-mile of this yard eight miles away, to another town, to buy his building material.

Not only in the small town do you find dealers with an apparent indifference toward the customer.

Within the past year I was in a certain city, and on passing the store of a large wholesale and retail dealer in paint, glass, and wall paper I remembered that our stock of wall paper needed replenishing and went in to see what they had to offer. There were several people in the store, and all seemed to be occupied, but I do not recall that any of them were waiting on customers. I walked past several clerks to the rear of the store and stood several minutes near a desk where a man was working. Others came up and passed me, but not one spoke to me or asked me what I wanted, and I walked out again without anyone in the store offering to wait on me.

Gentlemen, these are extreme cases, but they serve to illustrate a point. Many firms that are in business to-day are merely results, not causes. They exist merely to fulfill a demand, and are not creating business and contributing toward the building up of their communities.

A new order of things is upon us. We are facing a complete revision of old-time selling methods, and rewards in honor and worldly wealth await the man who is awake and ready, who understands and will act.

Success is coming more and more to depend less on price and more on service. No man buys lumber until he has first been sold a house, barn, or other improvement. The dealer of to-morrow must sell the job complete or lose the business to the dealer who does. Our business must be made intelligible to the ordinary man and the ordinary woman as well as to a carpenter.

Man is a lazy animal, and he is going to spend his money where you make it the easier for him to do so, other things being equal.

If he can come to your yard and buy all the material for a job, get a picture showing how it will look when completed, get a set of instructions for erecting same, and if you can recommend to him a reliable man to build it, do you think that in order to trade at the other yard he is going to hunt up a carpenter, have him make out a bill, have you figure on it, and go to an endless lot of bother to get something that in the end he is not satisfied with because he did not know what he wanted and had no one to tell him?

And, furthermore, if we let him do it that way, it costs more when he is through than the carpenter told him it would cost, and he thinks you skinned him.

Wouldn't you rather add 10 per cent. to the estimated cost, guarantee to furnish it all at that price, give him excellent service and good lumber, have him satisfied, and therefore have a perpetual free advertisement for your business, in addition to the profit you made on the job?

There is no law on earth to prevent a man from making his services so valuable that no one has an even chance to take his trade away from him, and if by reason of his superior service he reaches out and builds trade in the vicinity of another dealer, without being unfair in his methods, he is entitled to the business; but when you join an association you manifest a desire on your part to play fair.

Your common interest with that of your competitor should stimulate good feeling and friendship, not hatred.

Competition

Many dealers, I believe, have the wrong idea of competition. Competition is not price cutting.

The ready-cut house concerns have taught me, for one, that price is of less importance than we are accustomed to think.

In nine cases out of ten a customer has made up his mind where he wishes to trade before he comes in to get figures.

A few weeks ago a farmer from whom we were buying some rough lumber was in our office and spied a ready-cut catalogue on our desk, and remarked that if he didn't have a pretty good house already he would order one of them, just to see what it was like. We turned to page 16, and showed him the "Maples," priced this year at $765, but with 5 per cent. discount for cash with order, making it $726.75 net, f.o.b. the factory, without foundation or brick for chimney. We told him we were just finishing up this same house, having contracted it to a local carpenter for a turn-key job, complete in every detail, for the sum of $637.50, a saving of $90 on their price, all the freight from the factory, which would be in the neighborhood of $150, more likely $250, and the cost of foundation and flue materials, a total net saving of over $400 on the job.

A gentleman is our office, figuring on a house, told me of a doctor in town who had remarked to him that he believed he would buy one of these ready-cut houses. We immediately wrote this doctor, calling his attention to the house we were building, which was going to cost complete at least 10 per cent. less than the ready-cut price f.o.b. the factory, and inviting him to pick out his house and come in and try us out on a proposition of that kind.

Will Duplicate at a Third Less

There has never been a mail order bill of lumber shipped into a town where I was in business, but if one gets by me and one of these houses goes up I will advertise to every man, woman, and child in reach of our yard that I will duplicate it for one-third less than it cost its owner.

Gentlemen, the advertising that the ready-cut people are doing is the best thing that could happen to our business. It is worth more to us in a way than all the combined advertising of the various manufacturers' associations. It is creating a desire for homes and a demand for the material to build homes in your territory and in mine, and we have so great an advantage in freight that we have but to adopt methods in our business that will turn this demand toward our offices.

Gentlemen, it's a cinch. We are getting the benefit of the combined national advertising campaigns of five big concerns absolutely free.

And the possibilities of the retail building material industry have never been touched. A very small percentage of the visible trade has kept our industry alive.

Competition? What is the necessity of having someone compete with you? Why not let your own past record be your only competitor?

A business bugaboo of the late Phil. D. Armour was the tendency of some firms to engage in a particular line or adopt certain methods just because a competitor was doing it. In a letter to his son he wrote: "It serves us just right if we lost money in it. We are simply in it because we saw someone else in it, and not from any special knowledge or desire of our own. We saw someone else doing it and couldn't refrain from doing it ourselves. I have posted a rule in the house that any man who says we ought to do so and so because a rival company is doing it is to be shot."

* Abstract of an address delivered before the Arkansas Association of Lumber Dealers.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted—Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Hardwood Wanted

1 in. and 1¼ in. or 3 in. Red or Blue Oak, White Ash, Maple. Apply J. P. Abel, Fortin & Co., Maisonneuve, P.Q. 9-9

Cheese Box Veneer

Wanted a quantity of cheese box veneer and heading, standard stock. C. B. Moses, Carp, Ont. 8-11

White Pine Wanted

Wanted, car of 6/4 x 6 in. to 12 in., 10 to 16 feet long, grade No. 2 barn and better, dry White Pine. Apply Laird Bros., Dresden, Ont. 9-9

Spruce Wanted

We want a quantity of strictly clear spruce can use inch and thicker—four inch and wider, ten foot and longer. Will take stock for immediate shipment or for future delivery.

What can you offer,

Address S. F., care of Canada Lumberman, Toronto, Ont. 9-t.f.

For Sale—Lumber

Lumber For Sale

300,000 ft. B.M. 1 x 4 and up Clear and No. 1 Spruce.

400,000 ft. B.M. 2 x 4 to 2 x 10 Spruce. Piled widths and lengths separate.

GEO. C. GOODFELLOW,
Montreal, Que.
c

For Sale—Machinery

Saw Mill Machinery For Sale

1 100-h.p. boiler with Dutch oven, latest type, and all fixtures; 1 14 x 14 Robb Engine, latest type, with all fixtures; 1 sawmill frame with rope feed; 1 edger, self-feed; 1 lath machine with bolter, etc.; 1 planer and matcher; 1 re-saw, together with a quantity of saws, shafting, belting, live rollers, etc. All of the above, in A-1 condition, will be sold at a bargain, and can be seen at any time by appointment. H. W. Woods, Welsford, N.B. 7-10

Shingle Mill For Sale

One new upright shingle mill with edger for sale. Apply to A. Duquette, Papineauville, P.Q. 8-11

Portable Mill

Portable sawmill for sale, in first-class condition, with double edger. Apply Box 552. Canada Lumberman, Toronto, Ont. 7-10

For Sale

One Revolving Bed Planer, 24 in. wide, and will dress 14 ft. timber, in good repair and nearly new. Apply Box 572, Canada Lumberman, Toronto, Ont. 9-9

For Sale

For saw, shingle and lath mill machinery write the G. Walter Green Co., Limited, Peterboro, Ont. We have a nearly new 50-brake H.P. Case engine on skids. 6-9

For Sale

1s 4 Wheel Trucks, Standard Gauge, 24 in. wheels.

1 Log Loader.

1 Double Drum Beatty Hoisting Engine, 7 x 12.

JOHN J. GARTSHORE,
58 Front Street West,
9-12 Toronto, Ont.

List of Sawmill Machinery For Sale

Item No. 1—One Union Iron Works Upright Resaw, eight foot wheels with drive pulleys.

Item No. 2—One improved Merrison & Co. Horizontal Slab Resaw, 5 ft. wheels for 8 in. Saws. These Mills were used only three years.

Item No. 3—One Jump Cylinder, 10 x 12. Giddings & Lewis make.

Item No. 4—Three 6 x 8 Jump Cylinders.

Item No. 5—One Tug Smoke Stack, Size 34 in. x 23 ft. x 10 gauge Iron.

Item No. 6—One Three Saw Edger. Waterous make.

Item No. 7—One Smoke Stack—26 in. x 73 ft., with 7 ft. Spark Catcher. 10 gauge Iron, 40 ft. 12 gauge to top.

Item No. 8—One Timber Surfacer Cylinder Head—30 in. with Side Heads, 14 in. Shop No. 8461, Cut No. 202. McGregor & Gourlay.

Item No. 9—One Picket Machine. McKechnie and Bertram make.

All Machines in good working order.

Item No. 10—One Boiler, 60 x 14—54—3½ in. tubes, 70 lb. pressure.

Item No. 11—One Boiler, 60 x 12—54—3½ in. tubes, 60 lb. Pressure.

These boilers have been inspected by the Ontario Government, using 5 as a figure of safety.

The Pigeon River Lumber Company, Limited,
9-12 Port Arthur, Ont.

Wanted—Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

BAND SAWYER wants position. Right or left hand. Single or double cut. First-class references. Box 2, Canada Lumberman, 42 St. Sacrement St., Montreal. 7-10

LICENSED ENGINEER wants position on locomotive or donkey engine for logging or loading operations. Long experience. Now employed in B. C. but wants position in Ontario or Quebec. Box 561, Canada Lumberman, Toronto, Ont. 8-11

FIRST CLASS BAND SAWYER would like position with some Canadian firm. Am 31 years old, single, had 5 years' experience and will guarantee satisfaction or no pay. Prefer right hand rig. References. Address O. D. Granum, Amery, Wis. 9-9

SITUATION WANTED — Married man, over twenty years' experience in wholesale and retail lumber business, wishes position of trust or manager for good firm. Box 571, Canada Lumberman, Toronto, Ont. 9-10

EXPERIENCED LUMBER TRAVELLER wants position, thorough knowledge of every branch of lumber, joinery, etc. Very best connection, 30 years' references. No realty speculation connection. Box 568, Canada Lumberman, Montreal, Que. 9-9

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

Wanted—Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

WANTED STENOGRAPHER who reads and writes English and French. Also a Setter for Band Mill. Address, John S. Eagles & Company, St. John, N.B. 9-9

WANTED, GOOD MACHINE HAND in planing mill, one who can keep in first class running order all machines, such as saws, planers, moulders, etc. Apply Laird Bros., Dresden, Ont. 9-9

WANTED: STEADY RELIABLE MAN, with fair knowledge of handling logging and portable saw mill operation, also with some knowledge of buying and selling and general trading. Reply, giving age and full particulars, to Box 566, Canada Lumberman, Toronto, Ont. 9-9

Business Chances

For Sale

Half interest in, or all of, the white, red, and jack pine, spruce, and cedar timber (estimated 20 million) on well watered Township. Can be operated two years without sleigh haul. Apply Howard Gover, Coldwater, Ont. 8-11

Sawmill To Rent

Will rent water power sawmill with grist mill in connection therewith. Profits average over $5,000 a year for the last ten years. $3,000 will finance.

I. E. WELDON, Solicitor,
8-11 Lindsay, Ont.

Jobbers Wanted

We wish to let several contracts to take out logs on Berth No. 6, being broken front lying between the Magnetawan and French Rivers. This berth is all convenient to Canadian Northern Railway.

John Harrison & Sons Company, Limited,
Saw and Planing Mills,
9-t.f. Owen Sound, Ont.

Mill Plant and Limits For Sale

43 Miles Limits on 31 Mile Lake, Gatineau Valley, containing Basswood, Spruce, Fir, Pine, Cedar, Birch, Maple and Pulpwood.

New Waterous 8 ft. Improved Double Cut Band Mill complete. Steam Alligator, Boats, Sleighs, Wagons, Harness, etc. For further particulars apply to

A. W. STEVENSON,
P.O. Box 2624,
8-t.f. Montreal, Que.

Miscellaneous

For Sale

One 10 station stationary Eco Magneto watchman's clock complete, practically new; suitable for sawmill or factory. Will sell cheap. Charles H. Nadeau, Port Daniel, East P. Que. 8-11

Birch Stumpage Wanted

We are open to consider a large block of Quebec birch stumpage; must be good operating chance and near railway. Apply Box 546, Canada Lumberman, Toronto, Ont. 7-10

For Sale

24 B. C. Timber licenses (perpetual) on inland passage to Prince Rupert. Also properties at Chilliwack Lake and Quatsino Sound. All good logging propositions.

CARL BLOCK,
5-10 Peoria, Ill.

Township Foster Timber Limit For Sale

License Renewable. No time limit; 36 sq. miles on North Shore. Abundance of excellent timber throughout its entire area. Pine, Birch, Hemlock, Spruce, Cedar Ties, Poles and Pulpwood. Roads all cut and ready for operation. Close to two railroads. Splendid chance for portable mill operation. For particulars apply R. B., Box 544, Canada Lumberman, Toronto, Ont. 6-9

Auction Sale of Timber License

Under and by virtue of the powers contained in a certain hypothecation which will be produced at the time of sale and under and by virtue of all other rights and powers thereunto enabling, there will be offered for sale by public auction on Wednesday, the 2nd day of May, 1917, at the hour of 2 o'clock in the afternoon, by C. M. Henderson & Co., Auctioneers, at their premises, 128 King Street East, in the City of Toronto, the following property, namely:—

All that certain license to cut timber in and upon certain portions of the Township of Proudfoot, which license is known as Number 286 of the Season 1916-1917, and being Berth Number 3 in the said Township, as set forth and described in the said license, saving and excepting thereout all such lots or parcels as are thereby excepted.

The limit for which this license is held is said to be favorably situated and easy of access. There are said to be considerable quantities of valuable hardwood upon the limit, over 3,000,000 feet of birch and over 800,000 feet of maple, being stated to be suitable for manufacture into lumber, besides upwards of 100,000 cords of hardwood.

Terms—Ten per cent. of the purchase money to be paid down at the time of sale and the balance to be paid within thirty days, without interest.

The License is offered for sale subject to all the conditions and regulations of the Department of Lands, Forests & Mines of Ontario, affecting the same.

The property will be offered for sale subject to a reserved bid.

Further particulars, terms and conditions of sale will be made known at the time of sale or upon application to Johnston, McKay, Dods & Grant, Traders Bank Building, Toronto, Solicitors for the Vendors.

Dated at Toronto this 12th day of March, 1917. 6-9

United States Will Build a Wooden Fleet

The program submitted by the United States Shipping Board for the construction of a thousand

wooden ships, has received the approval of President Wilson, and other formal action in regard to it will be taken shortly. The preparation and approval of the program has been hastened somewhat by the declaration of war between the United States and Germany.

Within five months, unless unforeseen complications develop, it is expected that the first of the great wooden ships will be turned out by shipbuilding firms, lumbermen and others with whom contracts have been negotiated by the Shipping Board, and during next fall and winter it is planned to have two or three vessels per day turned out by builders along the Atlantic, gulf and Pacific coasts, and, perhaps, on the Great Lakes, too. This rate of construction will beat the submarine, it is believed, and it is claimed that it can be kept up and increased for an indefinite period.

The wooden vessels will range in size from 3,000 to 3,600 tons each. The Shipping Board expects that this new tonnage will offset the loss by submarine warfare and even increase the world's shipping tonnage, most of which is now controlled by the allies and the United States, and which proportion will be increased still more as Latin-American nations enter the war, in accordance with present plans or expectations.

It is understood that the Shipping Board will call upon the United States treasury for from $10,000,000 to $15,000,000 within the next few days. Presumably this money will be drawn from the $50,000,000 which Congress placed at the disposal of the Shipping Board in the act creating that body. It is calculated that much more than even the $50,000,000 will be required to pay for a thousan good-sized wooden ships. Two hundred million is one sum that has been mentioned by men connected with the board and who are in touch with the situation.

PHILIP T. COOLIDGE
FORESTER
Technical training and ten years' experience. **Timber Estimating and Mapping. Supervision of Lumbering Contracts. Surveying. Forest Planting.**
Stetson Building, 31 Central Street
BANGOR, MAINE

General Mercantile Co., Limited
WHOLESALE LUMBER
B.C. FOREST PRODUCTS
922 Metropolitan Building. **Vancouver, B.C.**

Union Lumber Co.
Limited

White Pine
Red Pine
Spruce
Red and Jack Pine
Lath

Union Lumber Co., Limited
701 Dominion Bank Building
TORONTO, CANADA

Tender for
Timber Limits, Mill and Equipment

The following valuable property composing a going lumber manufacturing plant, is offered for sale in order that an Estate may be closed.

125 square miles, more or less, of timber limits under license from Ontario Government, conditions of which may be obtained from the Department of Lands, Forests, and Mines, which permits cutting of all kinds of trees; composed of Townships of Goschen, Carlyle, 67 and north half of Humbolt.

200 acres of land at mouth of river, on which are situated water-power sawmill, and mill dam, box factory, yard with docks and tramways, store, boarding house, blacksmith shop, machine shop, storehouses, stables, and about twenty houses for families. A steel tug eighty feet long; a steam launch and tow barge. Also camp equipment for two camps, including sleighs, horses, and all necessary rigging.

The territory is well watered and the river improved with dams, slides, etc. Blue prints may be obtained at the office of the undersigned.

Tenders for the purchase of the foregoing, endorsed, "Tender for timber limits, etc.," addressed to the undersigned, will be received up to Thursday, 28th June, 1917.

Terms: Certified cheque, payable to the undersigned, for 10 per cent. of the amount offered, must accompany the tender; 15 per cent. to be payable on the 1st of August, 1917; 25 per cent. on the 1st of November, 1917; 25 per cent. on the 1st of February, 1918, and 25 per cent. on the 1st of August, 1918.

Interest at 6 per cent. per annum from date of acceptance of offer to date each payment is made.

Cheques of unsuccessful tenderers will be promptly returned. The right is reserved to reject any or all proposals.

National Trust Company, Limited
20 King Street East, Toronto

Flat Grain Flooring, B.C. Fir

British Columbia Products

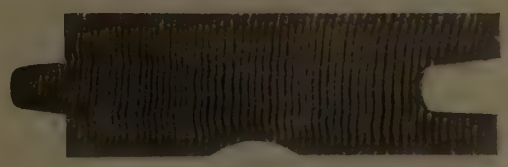
SPECIALTIES

- 6000 Doors in Stock
- Verandah Columns and Turned Posts
- Red Cedar Shingles
- Clear Red Cedar Clapboards
- Clear Rough Fir, all thicknesses
- 5/8" and 1" V-Joint Sheeting, B.C. Fir
- 1" x 3" Flat Grain and Edge Grain Flooring, B.C. Fir
- 5 Carloads of Mouldings in stock; all Standard pattern in B.C. Fir
- Base and Casing, B.C. Fir

Have always cars in transit. Ask for my prices and you will make larger profit.

DISTRIBUTOR OF
"Beaver Board" and "Bishopric Stucco Board"

Wilfrid H. Pauzé, 1822 Cote des Neiges, **Montreal**



Edge Grain Flooring, B.C. Fir

Review of Current Trade Conditions

Ontario

The encouraging conditions reported a fortnight ago continue in the Ontario lumber trade. So far as the trade in the cities is concerned, it continues on the moderately quiet basis already reported, being made up chiefly of shell box orders, and a fair increase in orders resulting from more extensive building operations than those of a year ago. All wholesalers report that conditions are exceedingly good, and that they are receiving a large number of orders, both for export to the United States and for domestic trade. In connection with the United States markets most of the railroad embargoes have been raised. For instance, it is now possible to obtain permits from the New York Central to make shipments for export.

The lumber trade at Ottawa has improved substantially during the past fortnight, chiefly on account of nearly all the embargoes on lumber being lifted by the railroad companies. Shippers are doing their best to make up for the delays of the last few months. Latest reports from producing districts indicated that the spring drives would probably commence about the end of April. On April 20th most reports were to the effect that the rivers and lakes were still ice-bound. The Ottawa trade is expecting a good demand from the United States this summer in connection with the extensive ship-building programme that has been announced by the Government at Washington. Ottawa prices continue unchanged but very firm. The retail trade at Ottawa is still quiet.

Hardwood prices are being maintained at their former levels, and indications of further advances are numerous. Stocks in consumers' hands to-day are lower than ever, and the visible supply in every line is not sufficient to meet the demand.

Ontario hardwood wholesalers are all in an optimistic mood, and report that conditions look extremely promising. Enquiries are more promising than ever, and orders are flowing in freely. The trade seems to have recognized the fact that prices have gone up materially, and that they must pay the higher figures if they want the stock. In fact, the general belief to-day is that prices will be still higher before they are lower. There is a very strong demand for thick birch and a heavy call for 4/4 birch of all grades. A shortage is reported of 5/4 and 6/4 dry birch. There is practically no dry basswood on the market, and the same applies to dry ash. Stocks of 4/4 dry elm are also very scarce. Hardwood firms are finding that, in addition to plentiful orders, they are able to realize satisfactorily on their sales, collections being good in practically all quarters.

Eastern Canada

A considerable improvement has taken place in connection with the lumber trade at Montreal. Many lumber embargoes have been removed by the railway companies, and better weather has enabled them to move traffic more freely. The C.P.R. has taken off the embargo on Montreal, except to the Cote St. Paul terminal; also the embargoes on Toronto and all points east of Megantic. The wholesale trade reports a plentiful volume of orders received, but continual difficulty in obtaining dry lumber. Prices continue firm in practically all lines, with indications of a further advance. Building permits in Montreal show a good increase as compared with a year ago, and contractors are expecting a much busier season than last. There is improvement to note in connection with the trade with the United States. Canal shipments will commence on May 15, the rates being higher than a year ago, namely, $3.65 from Three Rivers and $4 from Ottawa points. Exporters to Great Britain are very much in the dark in regard to the outlook, and do not expect more than a moderate volume of export trade this year.

Further strength is reported in the market for Eastern spruce at Boston. Quotations on frames are very firm at $36 base, and several manufacturers are refusing anything less than $37 base. It is expected that a $40 base will prevail early in May. The local demand at Boston continues to improve. There is a strong call for random and prices are advancing. Current quotations are: 2 x 3, 2 x 4, 2 x 5, 2 x 6, and 2 x 7, $30 to $31; 2 x 8, $33 to $34; 2 x 10, $35 to $36; 2 x 12, $36 to $37. Covering boards are selling at $30, and matched boards, stock lengths, at $32 to $35. The market for hemlock boards at Boston is firm. The lowest price reported for fairly dry clipped boards, 10, 12, 14, and 16 ft. lengths, is $26.50. Most of the business is at $27, and some wholesalers are asking $28 for the best boards.

All hardwood prices are strong at Boston, and many are advancing. Thick lumber, in particular, is very firm. Current quotations on mill shipments of first and seconds, inch, are as follows: Basswood, $48 to $50; maple, $50 to $52; plain oak, $65 to $68; quartered oak, $90 to $95; red birch, $68 to $70; sap birch, $60 to $62; white ask, $58 to $61.

Shingles at Boston are very strong. For prompt delivery the prices are $5 for extra white cedars and $4.65 for clears. Lath are also strong. For 1⅝ in. many sellers are quoting $5.50.

United States

The lumber trade in the United States is going ahead apparently with little immediate alteration on account of the nation entering the European war. Government orders for many lines of goods required on account of the war have already been placed, and are stimulating trade. Many lumber prices have shown an advance during the past fortnight. The trade situation in most of the producing districts is characterized chiefly by a shortage of cars. The supply of cars furnished by the railroads is far from sufficient for the volume of shipments from producing districts. Railroad companies, however, report that conditions will soon improve. No change is reported in connection with the ocean freight situation, though there are reports to the effect that rates will not continue climbing much longer. The scarcity of vessels is very pronounced. Possible government regulation is the factor that may bring about a reduction of the rates. Before the war rates from New York to Liverpool averaged about $4 a ton. The average to-day is about $100 a ton.

Reports from yellow pine producing centres indicate that production has recently exceeded shipments for the first time in a number of weeks. Mills have abnormally large stocks on hand, but their orders are also very heavy. An analysis shows that about 80 per cent. of stocks on hand are sold.

White pine mills in the north are starting their season's operations. Most of them have very small stocks available for shipment. Cars are more plentiful for white pine shippers than they have been for some time, and the volume of orders, particularly for the Western pine mills, is increasing steadily. A few white pine mills are refusing orders so as to enable them to catch up with what they have on their books. Prices are very difficult to report, depending largely upon the ability of the seller to make prompt shipment.

Hardwoods continue very strong. On account of the scarcity of cars, many of the important consumers in the East find that their stocks are seriously reduced. A similar report is received from a number of Pacific Coast points. Some government orders for hardwoods have been placed, and more are expected.

Great Britain

In spite of the abnormal state of affairs in connection with the lumber trade in Great Britain, a considerable quantity of stock is going into consumption. Latest reports state that nothing is yet reaching London from North Europe ports, and that forward business is not probable until freight rates become more reasonable. Stocks at the docks are still of fairly good size, and, together with home-grown supplies, furnish sufficient for some months to come. Deliveries at London docks for the week ending March 31 amounted to 3,209 standards, as compared with 3,776 standards during the corresponding week of a year ago.

Little or no variation is reported in connection with the trade at Liverpool. The price list committee of the Liverpool Timber Trade Association have published and circulated privately a list of prices for softwoods, being those which prevailed during the week ending January 31, when the government took control of stocks. It is reported that these prices have met with general approval, and may be adopted by the trade. The Liverpool trade have recently had to face another increase, amounting to 15 per cent., in the master porterage rates. This makes an increase of 52½ per cent. on the schedule rates.

It is still impossible to say anything in regard to the situation in connection with future cargoes of spruce deals. A short shipping season only will be available, during which goods can be imported; except in connection with the open Canadian ports, the chief stocks of which have long since been disposed of. Undoubtedly a number of firms are anxious to obtain further supplies, as is shown by the promptness they exhibited in securing such liner parcels as are on passage, and also by the fair enquiry for suitable stocks remaining in the hands of shippers' agents.

From Manchester there is very little to report, the chief features being scarcity of stocks and of labor. A few imports are reported under recent date, after a long period of idleness. Three vessels arrived bringing, in all, about 2,000 loads. From Halifax and St. John about 500 standards of spruce, pine, and hardwood arrived chiefly at the order of brokers.

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Ottawa Able to Ship at Last

Ottawa, April 20.—(Special to the Canada Lumberman.)—Without exception, according to reports, lumbermen in Ottawa and district are extremely busy. The main reason is the recent lifting of embargoes on lumber for nearly all points, and shippers are trying to make up for the delays of the past few months. As a consequence, a more cheerful and optimistic feeling pervades, and lumbermen report conditions much more to their liking.

The most timely subject, next to freedom from embargoes, is in connection with getting down the spring drives. With the present brand of weather, they state quite confidently, that these operations will commence in from ten to twelve days at the outside. In the rivers and lakes throughout their limits the ice is still thick in many places, and it will require really mild days and many thaws to loosen it up.

Lumbermen are anticipating a good business this summer. Conditions on the other side of the line enter partly into their calculations in this regard. The increased output of ships for combatting the submarine menace and for transporting food supplies will affect the demand for Canadian lumber products, they believe, and result in heavy shipments to the other side. The Ottawa district, being so convenient, from a transportation standpoint, will be benefited.

There is no change of any account to report in the price situation. Indications, however, point towards advances at an early date.

There is still a quiet condition prevailing in the retail situation, and business is by no means brisk. Little building is taking place. In fact, there is a complete absence of speculative building in Ottawa or suburbs.

All the mills in the Ottawa Valley are encouraged by the prospects for a good season's business.

British Columbia Trade Optimistic, But in Need of Vessels

Vancouver, B.C., April 18.—(Special to the Canada Lumberman.)—There is a great demand in British Columbia for export lumber, but the volume of trade is limited strictly by the shipping capacity. There are encouraging indications, however, that the export trade will increase substantially in the near future. The Robert Dollar Company will soon commence operations at their mill on the north shore, which will be almost exclusively an export mill. The Reynolds Shipping, Timber, and Insurance Agency have leased a mill at Port Moody, about 12 miles from Vancouver. They will increase the capacity of this mill and commence operations within a short time. The new capacity of the mill will be about 150,000 feet per day, and an important portion of its business will be in connection with the export trade.

Several lumber carrying vessels have recently been launched, both at Vancouver and Victoria. Two of these are now loading lumber for Australia, and they will be followed by other vessels just as soon as they can be built. The indications now are that Vancouver will soon become an important shipbuilding centre, as parties here are contracting with the British Government to build large steel vessels.

If we had the boats to carry lumber we would be in clover. The general feeling in the lumber business at present is more optimistic than it has been for years, both as to export and as to rail business.

British Columbia Coast Trade Has Surplus of Orders

Vancouver, B.C., April 20.—(Special to the Canada Lumberman.)—Lumbermen report that they are having as much trouble as ever, on account of the scarcity of cars. One large plant is averaging only three or four cars a day, but states that relief is promised soon.

Labor conditions are bad, strikes having taken place lately at several of the mills. This, together with the log shortage and the car shortage, will serve to stiffen coast prices. Coast mills have on their books now over 100,000,000 feet of unfilled orders, and during the past four weeks the volume of sales has been equal to the production. Good logs are very hard to obtain.

Montreal Trade in Better Shape

Montreal, April 24.—(Special to the Canada Lumberman.)—The removal of railroad embargoes has contributed largely to an improvement in trade. The better weather has enabled the companies to move traffic more freely, and, as a result, the C.P.R. has taken off the embargo on Montreal (with the exception of Cote St. Paul terminal), Toronto, and all points east of Megantic, which has been in force for some time. A new notice, however, placed an embargo on shipments of coal, cordwood, slabs, and edgings consigned to all Montreal terminals. With a view to prevent congestion of goods for export, an embargo is also placed on freight that is not booked, the object being to avoid goods being sent to the port a long time ahead of date of shipment.

Wholesalers report that many orders are coming to hand, but the difficulty is to secure dry lumber. Prices are advancing, and the chances are that they will go still higher. Advices received from British Columbia state that advances of $2 and $3 are general. A point raised by one lumberman is to the effect that prices may become so stiff as to exercise a restraining influence on business. People inclined to build may be deterred owing to the high cost, which makes it difficult to obtain a sufficient return on their investment. On the other hand, the cost of cutting and manufacturing lumber is higher, and, under these conditions, together with the scarcity of stock, it is only natural that prices should advance steadily. There is an indication that building will be more brisk than last year, the permits showing a good increase.

Prospects of trade with the United States are brighter. Canal navigation will open on May 15. Freight quotations for lumber will be higher than last season, being $3.65 from Three Rivers and $4 from Ottawa points.

The outlook for export to the United Kingdom is not good. The firms in this branch are without definite information as to how the situation is likely to develop, but it is believed that the quantity of goods shipped will be small on account of the commandeering of space by the government.

The pulp and paper markets show little alteration. Chemical pulp continues in good demand, and as the European supplies are likely to be small, the prospects are favorable to a high level of prices being maintained. More ground wood is going to the United States, and quotations are very firm. The Wayagamack Pulp and Paper Company intend to make further additions to their plant.

Glasgow Timber Market Report

Cant & Kemp, Glasgow, in their quarterly timber market report, dated April 3, say: Shipbuilders are fully employed on government work, which now includes a large number of standardized vessels for cargo work. Wagon builders are still busy on government work, but have to depend on home-grown timber for their supplies. Owing to the restrictions which have been made by the Board of Trade on shipping news, no reliable information of imports or consumption can be given.

Ash—The stock is small, and is now in merchants' hands. Quotations are: From 8/- to 8/6 per cubic foot for first-class logs, and from 5/6 to 9/6 per cubic foot for boards and planks, according to quality and specification.

Birch—There has been an active demand for both logs and planks, and stocks are considerably reduced.

Quebec yellow pine deals, etc.—There has been a large turnover in all grades, and first-hand stocks are nearly exhausted. Quotations are as follows: Firsts—Broads, 6/10 to 7/3; regulars, 6/1 to 6/4; undersized, 4/9 to 5/-. Seconds—Broads and regulars, 5/2 to 5/9; undersized, 4/3 to 4/6. Thirds—Broads and regulars, 4/5 to 4/9; undersized, 4/- to 4/2. Fourths—Broads and regulars, 4/1 to 4/4; undersized, 3/10 to 3/11; good sidings, 6/- to 7/—all per cubic foot according to quality and specification.

Quebec spruce deals—The stock is being steadily depleted, and prices are restricted. Quotations are: 9 inches and up, 4/- to 4/6; 8 inches and under, 3/7 to 3/10½—all per cubic foot.

Lower port pine and spruce—The stock shows little change. Quotations are: 9 inches and up, 3/11 to 4/5; 8 inches and under, 3/6 to 3/9—all per cubic foot.

Boston Prices Still Advancing

Boston, Mass, April 23.

Editor Canada Lumberman:

It is pretty hard to say anything in regard to prices prevailing in the New England markets to-day. If one sells at a regular price for a week or ten days he finds that his neighbors have advanced their prices materially during that time, and when he wants to buy more, he finds that he has to pay a good deal higher prices to replace it. So price lists have to be revised constantly. Trade conditions generally have been changing a great deal of late. The very high prices in the United States are having the effect of curtailing transactions, and there will probably be a good deal less local business than there was during the

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previous year. Although the local business then was quiet and light, prices did not drop off, as the demand for boxing, crating, pattern stock, etc., and for material for factories was largely increased, and all handlers were kept busy.

A new element, however, has to be reckoned with to-day—that is, the entire drop-off of business with England and France in Canadian spruce lumber. This has a decided effect on values in the United States. If the Canadian mills do not sell their usual cuts for export to England in the next two or three months it is likely to make quite a difference in the prices they will be able to obtain for the lumber shipped into the United States markets. Formerly quite a portion of the Canadian spruce cut has gone to England, as a rule in deals, the balance coming to the United States in plank and boards. Now the prices on plank and boards have been marked up very heavily during the last three or four months, and the mills are asking higher prices accordingly, but we think the sales are slow, and it rather looks as though prices would have to ease off to some extent in Canada on spruce for the American market. If this does happen, the effect on the spruce market here will be important, and for this reason we advise care in purchasing at present high prices for future delivery.

New Brunswick cedar shingles have gone pretty nearly out of sight in the better grades. Extras are bringing $5 and clears $4.65. Second clears sell at $2.90 and clear whites at $2.40. Red cedars have followed the white, and, in fact, have gone a little higher. Barn boards in every width have advanced in price.

Shepard & Morse Lumber Company.

The B. C. Logging Situation

Editor Canada Lumberman:— Myrtle Point, B.C., April 15.

We have had a very severe winter and late spring in British Columbia, and this has curtailed production in the logging camps by fully 50 per cent. The sawmills have been able to operate practically full time, which has caused a decided shortage in the available log supply, and the consequent advance in price. However, the advance in prices cannot be attributed to this cause alone. During the past year, lumbermen have been obtaining values for their lumber far in excess of the proportionate price of logs, while the logger was in reality losing money. The advance in the cost of material and supplies of all kinds and the increased cost and lower efficiency of labor since the war began, and more especially during the past year, have been important factors in the advance in the price of logs.

Fir prices are now $8, $11 and $14, according to grade, and cedar prices range from $13 to $18, depending upon the quality. These prices seem large, but we do not think there is any logger on the coast today who would not much prefer to see prices $2 lower, with conditions normal. Cable and steel rails are practically off the market here, as well as in the United States. Some sizes of iron and steel are unobtainable. Canned fruits and vegetables, on account of the scarcity of tin, are rapidly becoming scarce.

Those of us who were fortunate enough to place orders for cable through the Admiralty last fall are getting some results in part shipments, but others who were not so fortunate may not be able to operate. This condition does not apply to British Columbia alone, but prevails in the United States in an aggravated form.

In mentioning some of the causes for the advance in the price of logs we neglected to state the chief cause. Many of the mills which had been shut down since the commencement of the war are starting up this spring, as well as some new mills which are being built. Unless some of the obstacles mentioned above are overcome we cannot see how there can be a sufficient quantity of logs produced to keep the mills in operation.

No doubt the mills are experiencing the same trouble in getting their supplies and with their labor, and it would appear as though, in carrying on this great war, we had lost sight of how we are going to keep the industries of the country in operation.—Yours truly, Bloedel Stewart & Welch, Limited.

Eastern United States Firms Reaching Out Into Canada

Mr. K. C. Clark, of Oldtown, Me., in a recent interview with the St. John, N.B., "Telegraph," stated that United States lumber firms in the east are reaching out more and more into Canada for material, and that within another five or ten years almost all the large lumber mills in Maine will have been converted into pulpwood and pulp mills. Mr. Clark, accompanied by Mr. O. A. Wakefield and Mr. C. Randall, of James W. Sewall, left St. John, N.B., recently to cruise timberland on the north shore of the Bay of Chaleur.

Speaking of conditions in the State of Maine, Mr. Clark said that the cut this year was only about 75 per cent. of the normal amount. Heavy snows, with soft bottoms, made the logging difficult. The scarcity of labor, due to many of the men going to munitions factories, had greatly handicapped the woodsmen. Camp supplies had been very high, yet the firms were invariably reaching out for more lands, and had added greatly to their possessions during the year. Pulpwood is now rapidly becoming the chief phase of the industry in the Pine Tree State, said Mr. Clark, and another five or ten years would undoubtedly see all the big lumber mills turned over exclusively to pulpwood making. With the exception of the comparatively small cut, the winter had been a very prosperous one in Maine, and all industries were booming.

Canada's Foreign Trade in Wood Goods

Canada's exports of forest products during the twelve months ending January, were valued at follows:—1917, $55,676,911; 1916, $51,211,820; 1915, $41,523,344; 1914, $42,707,781.

Exports of wood and manufactures of wood for the twelve months ending January were valued as follows:—

		1917		
Articles Exported	1916	Total	To United Kingdom	United States
Logs	$ 1,292,477	$ 846,476	$ 67,261	$ 778,699
Lumber—Deals, pine	1,292,442	1,509,994	1,441,343	54,309
Deals, Spruce and other	9,988,654	9,868,303	8,257,985	286,670
Laths, palings and pickets	2,460,900	2,217,306	14,299	2,196,749
Planks and boards	22,976,623	26,304,752	2,176,965	22,155,180
Shingles	3,722,197	3,848,107	.....	3,802,931
Timber, square	479,844	323,253	280,631	37,439
Wood blocks for pulp	6,160,779	6,765,114	.....	6,765,114
Wood-pulp	9,846,554	18,626,630	2,957,351	14,882,039
Wood and mfrs. of—Total	$62,053,391	$75,350,783	$17,682,554	$52,681,469

Canada's imports of wood and manufactures of wood during the twelve months ending January were valued as follows:—1917, $11,271,338; 1916, $8,406,841.

Your Enemy's Photograph

This time it isn't the Kaiser, but the picture of a forest fire which Robson Black, secretary of the Canadian Forestry Association, is sending out. What he says is worth reading and repeating:

You will recognize here a portrait of your Enemy.

His name is the Forest-Fire-Fiend. He lives by pillage.

What he thieves in one year would pay the premiums on $1,000 life insurance for 300,000 Canadians at 25 years of age.

It would almost double the pensions on 19,000 disabled soldiers.

The thefts of this enemy from the storehouse of our wood supplies run from four to six millions and worse per year.

By every December he has left you and your family a little poorer than you would have been without his presence.

Canada is the only country on earth that thinks it can afford million-dollar bonfires in war-time.

Every man who fools with fire in or near a forest betrays his country. You and I are not the owners of the forests and fields. We are trustees.

Sir George Foster said a good thing: "You are drawing the blood of a future generation in Canada when you misuse the forest resources of the country."

Keep this clear: Timber is a crop. Most of our timber is to be found where no other crop can possibly grow.

A forest fire, therefore, usually means that a large area of land has been stripped of its only possible crop. The land lies waste. Nobody gains. The Nation is that much poorer.

Canada has not one tree too many for present and future needs. We own just one-quarter of the timber possessed by the United States. Since pioneer days the Fire Fiend has robbed us of two-thirds of our original forest inheritance. On what remains the most careful economy will be necessary to meet the increasing requirements of the population. Forest protection, then, is just a matter of good citizenship.

Price Brothers & Co., Ltd., Present Good Report

After all charges are paid, with the exception of the Dominion war tax, the net surplus of Price Brothers & Co., Ltd., for the year ended February 28 totalled $805,218. This compares with $393,538 in the preceding fifteen months. All the indebtedness to the bank has been liquidated. Additions to the general property and plant in the year are placed at $550,988, while $127,822 was expended on the Shipshaw Power Company. The report states: "The pulp and paper branches of the business have, in common with other similar concerns in the country, benefited to some extent by the increased demand for these products. The lumber part of the business has also proved profitable, as heretofore, despite the existence of conditions which have been adverse to expansion." The additional unit to the Kenogami paper mills and the increased development at the Shipshaw power plant, financed during the year, will, it is believed, prove profitable.

Canadian railroads, following the example of those in the United States, are applying to the Board of Railway Commissioners for permission to make an advance of 15 per cent. in their freight rates.

Our Progress

When coming into our new building about four years ago we started out to make a drive for increased business, and have been able to report one increase after another in regular succession. A little time ago we told you of having doubled our sales in three years. Since the first of the year we have been doing even better, in fact have been making some giant strides, having made an increase of 40% over the same period last year, this being three times the amount for the first quarter of three years ago.

There's a meaning to all this, and one of the main reasons for it is that in these days of extreme difficulty in obtaining supplies we have been pursuing a courageous policy of anticipating far ahead the requirements of the trade and have had large blocks of goods to offer when they were wanted. Consequently we have been enabled to roll up an enormous volume of sales. Our selling terms are strictly net 30 days. The same to one and all alike—we play no favorites.

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Australia's Douglas Fir Timber Import

An Account of the Methods of Buying, Shipping, Grading and Handling — Canadian Mills Cutting One Another's Throats by Competition

By H. R. MacMillan*

The manner in which timber is imported, sold, and distributed in Australia must be thoroughly understood by anyone desiring to enter and extend the Canadian lumber export trade.

Each state draws the greater part of its supplies from abroad through one port. The order of the states as they stand at present according to quantity of importation for each is likely to remain unchanged. Each state has great, undeveloped potentialities, and needs only the influx of capital and population to greatly increase its lumber importations. The yearly importations of Queensland, which are now unimportant, are likely to show the greatest proportionate growth. The development of new areas and the rapid running up of timber importations in Australia in the past have been more often consequent upon mining discoveries than on any other cause. Great possibilities in this direction are known to exist, and may at any time lead to a strengthening of the timber demand and the diversion of new trade to a new port. This is particularly true of the northern section of the continental coast, six thousand miles in length, which now, from Brisbane to Geraldton, receives no timber importations. Should no great mining boom build up a great timber demand here, the slower growth of pastoral, semi-tropical and tropical agriculture and allied industries in time will certainly provide a market. This great region, equal in area to the whole of populated Canada, believed to be equal in resources to the land tributary to the Gulf of Mexico, at present uses no timber, solely because of lack of population, a lack which must eventually be overcome.

All the timber importing ports except Geraldton, Hobart, and Launceston, which rarely take lumber in steamer cargo lots, are in normal times supplied almost wholly by steamer shipments. The three ports named as exceptions, because of their limited demand, are usually supplied by sailing vessels and to a limited extent by transhipment. There is a strong possibility, however, that as demands increase in Australia, new areas open up, and nearby native forests are cleared away, many coastwise ports will provide a market for small lots of timber, such as can only be economically supplied by sailing vessels carrying cargoes of three-quarters to one and a half million. This has been the case in New Zealand, which in proportion to area is more intensely developed than Australia, and is likely to be the case in Australia. Should this development occur, the trade will provide a wider market of employment for the motor sail vessels now building.

Buying Methods

The merchants who are the actual importers and carry in stock the rough and dressed lumber, lath, shingles, staves, pickets, and other commodities, are kept in touch with the foreign producer, whether European, Russian, Japanese, or North American, by resident agents or brokers in Australia. The terms on which the latter do business are varied, and in the case of North American timber goods especially, are changing. Usually the resident commission house or man in Australia, when dealing with timber other than North American—that is, timber from countries where the production is not greater than the demand—is agent for certain producers, sells the product of no other competitive mills, and has the sole selling right for the mills he represents. In this case the mill in Sweden does its own exporting, makes its own freight arrangements, and quotes c.i.f. through its agent. This was once true also of the Australian imports from the North Pacific coast. At a time when over-production was not so great, the lumber was all carried in sailing vessels, and mills did their own chartering. At that time the importing in Australia was in the hands of a few merchants who were in direct communication with mills and purchased in cargo lots.

The great increase in the number of mills cutting for the export trade, the passing of cross-Pacific lumber transportation from the small schooner carrying four hundred thousand to fifteen hundred thousand feet, which was not too great a financial risk for a mill to charter and did not load faster than a mill could cut, to the steamer carrying two to four million feet, which no single mill could handle financially or physically, created a condition radically altering export methods on this side of the Pacific.

At the same time the inability of even the largest yards in Australia to accept large steamer loads of timber, and the growing up of a larger number of smaller merchants, three in Perth and Freemantle, six in Adelaide, thirty-six in Melbourne, forty to fifty in Sydney, twelve in Newcastle, and two to three in Brisbane, rendered necessary some middleman at the Australian end.

The result on this side has been that the direct connections with the Australian buyer at one time possessed by the mills has, except in the case of one or two mills, passed away. It would be difficult to build up anew such connections. The export of lumber has been divorced from manufacturing, and, so far as the Australian market for North Pacific lumber is concerned, is now in the hand of about ten United States shipping companies. These companies perform three functions. They buy the lumber from the producer, and by the methods of their buying create a state of archaic cut-throat competition unknown now in any other manufacturing industry of like importance; they charter the ships and sell c.i.f. or c.i.f. and e. Australian port, usually financing a portion of the transaction until the cargo is accepted by the purchaser. Only one or two Australian importers make their own freight arrangements.

These exporting companies, wholly of the United States, are the only connection between the manufacturer and the importer. They were at one time in direct communication with the merchant in Australia, without the services of a middleman, received by cable the enquiries and specifications, and quoted direct. In a few instances with the larger and older merchants in Australia this custom yet survives.

The common practice now is either that the exporter sells in Australia through a representative or agent, who works on a commission or fixed payment per thousand feet (amounting to about 25 to 50 cents), or through an established mercantile house which probably handles many other commodities in addition to lumber. In the first case it has been unusual for the representative in Australia to speculate in shipments coming forward. In the latter case the representative, being stronger, frequently speculated, either purchasing complete cargoes, hoping to sell them before arrival, or in cases where only a portion of the cargo was sold, brought the rest forward for later sale.

The tendency is now for exporters to deal in Australia through representatives financially strong enough to do a little purchasing speculatively on their own account. These representatives usually handle other building materials in addition to lumber, have branch offices in each important Australian port, and have small piling space in each Australian port. Orders may be solicited from merchants, large and small, in each port, the smallest may buy at as favorable terms as the largest. If the whole cargo cannot be placed before being contracted for, or if conditions are tempting for speculation, the representative will bring a part cargo or whole cargo forward and store it if not sold before discharging. As a rule, very little is stored.

Occasionally where a rising charter market is indicated the Australian representative brings a cargo forward speculatively, with the option of two or three parts, utilizing his branch office organization to divert the vessel to the port in which the most favorable sale can be made.

Distributing cargoes amongst merchants, large and small, has made it possible for small yard owners, if they are in a position to pay for a small shipment, to secure it on as favorable terms as a large buyer. This encourages the importation by small yard men of Pacific Coast woods which otherwise would only be available to purchasers able to buy in cargo lots, whereas competitive rough lumber from Scandinavian ports may be brought out regularly in parcel shipments on the frequent mail and freight lines.

Buying of Pacific Coast timber is speculative. The merchant issues his enquiry and buys usually six to twelve months before loading, and sometimes two years before delivery.

The fluctuations within a few months in normal times have ranged from $17.50 c.i.f. to $29. c.i.f. base for Douglas fir. A merchant buying for delivery six to twelve months ahead, as is the custom, is taking a grave risk of paying much more than his competitor, who may catch the market at a more advantageous point. Australian merchants would welcome a fixed export price for Douglas fir, as a relief from a fluctuating market influence, and accustomed to variations of $5 to $10 in the level of c.i.f. lumber prices, they would not be affected by an increase of $3 or $4 in the export base price.

The fluctuation of f.a.s. lumber prices and the much greater fluctuation of freight rates encourages speculation on the part of the exporter also, who may, and frequently does, sell c.i.f. before he has acquired either lumber or ship, or who may acquire either lumber or ship, or both, for loading in the distant future, and hold for months without selling.

Purchases Not Affected By High Freights

It is a remarkable fact that though the lumber freights from the North Pacific to Australia may vary in peace time from 28 shillings to

* Reproduced from Report to Dominion Department of Trade and Commerce.

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70 shillings or more, the purchase and use of North Pacific woods on the Australian market is in no way diminished by high freights. Even in war times, with freight rates over 110 shillings, the use of Douglas fir seems almost as great in proportion to the amount of building going on as in normal times.

The Australian merchant is not particular as to any slight variation in the c.i.f. price of Douglas fir, such as 12 or 16 shillings per thousand, so long as he feels sure that his competitor is buying no cheaper than he, and that the price will not fall appreciably after he has stocked up. He always buys more reaily on a rising than on a falling market.

There is a moral in this for the producer of Douglas fir and other woods of the Pacific Coast region. The increases of 10, 20, and more shillings per thousand feet which the Australian merchant pays in times of rising freight without diminishing his buying enthusiasm, would be as readily paid if they were increases in f.a.s. prices. It would only be necessary to assure him that the increases would be permanent or fixed for a definite period, and not temporary or subject to rapid fluctuation. The Australian buyer cannot credit the frame of mind in which the Pacific Coast manufacturer sells.

Australian Coast town merchants, through whose hands all timber imports pass, are strongly banded together in city associations for trade furtherance and protective purposes. Price lists have been uniform amongst all association merchants in each town month by month for some years past. There are few merchants who do not belong to these associations and few instances where association prices are not maintained.

Increased purchasing cost is passed directly to the consumer. Douglas fir retails from $40 per thousand feet in normal times to $60 per thousand feet in war times. The use of substitutes, brick, stone, cement, tiles, slate, and iron have reached their maximum. Douglas fir is only used where it is needed, and has no really close competition. An increase of $4 per thousand feet to the f.a.s. price would not affect its use.

The present system of exporting is conducted at the expense of the mill owners for the benefit of the vessel owners and Australian merchants. The producers of lumber, by far the most important group, in members and financially, compete against one another to fill the orders and keep the prices down. The exporters, fewer in number and with comparatively less resources, compete against one another for transportation and put the freight up. A proper combination of the lumber producers who control the only suitable timber commodity available to Australia, likewise the only timber commodity which gives lumber freights from North America to Australia their value, with the exporters who possess the export shipping knowledge, should be able to keep export lumber prices up to a fair and reasonable level and lumber freights also at a non-speculative and reasonable figure. The elimination of the present great element of speculation from trans-Pacific lumber freights would encourage steadier buying, in itself a more favorable condition for the producers.

The representatives quoting to merchants on Douglas fir usually are agents for Scandinavian timber, and in certain cases Japanese and Russian also. The species of timber sold is immaterial to the agent.

Not Pushing Douglas Fir

There are very few amongst the agents or selling representatives soliciting orders from Australian timber merchants who push Douglas fir only. Nearly all are quite as keen to sell redwood or Swedish timbers.

Few people selling Douglas fir or other Pacific Coast woods to merchants have more than a casual knowledge of their qualities or possibilities for more than rough construction purposes. Few have visited the region in which it is produced, have seen the manufacture of the woods, or are acquainted with recent developments in the use of woods for various industrial purposes or for more valuable and decorative uses in interior finish. Pacific Coast timbers are sold not as a special product, with certain definite qualities and values, but as wood, common wood.

The representatives in Australia selling imported timber quote on enquiries sent out by merchants. They rarely go further and endeavor to initiate a demand by showing engineers, architects, or important builders that any particular wood has special qualities which fit it for use in fields which it has not yet entered, such as Douglas fir for panel doors, or spruce and hemlock for boxes and shelving. There is a great field for this class of work.

Lumber Distribution in Australia

All lumber and timber imported into Australia is received and distributed by a comparatively small number of timber merchants. These merchants in each city work closely together in a strong association, with well defined trade regulations, the chief of which, as far as Pacific trade is concerned, apply to the regular maintenance of association established prices.

This is accomplished by allocating to each member of the association a definite proportion of the total business handled by the members. The association may also bar from the market any exporter who is not considered to have met association requirements in standards of business.

Although association members are not allowed to enter into price competition within a defined territory, which usually includes the city and suburbs, they may compete unrestrainedly in outside territory.

The State of New South Wales has opened up a timber yard in Sydney as a state enterprise. This yard imports direct, buying through the state representative in San Francisco, and in addition to supplying the important state requirements, enters the open selling market in competition with the timber merchants. The state yard appears to maintain association prices. This state yard handles about 1,000,000 feet monthly of Douglas fir.

The Australian timber merchant, in drawing up specifications and buying Douglas fir, devotes a great deal of ingenuity to working out means of secuirng a higher grade of lumber without paying for it. Specifications are so planned that the merchantable, when resawn, will produce the maximum possible proportion of select or better. For this reason some importers take 4-inch by 18-inch, instead of 6-inch by 12-inch. Others specify that their orders must, if possible, be purchased from some mill having no railroad connections, believing that from such mill they will get all the uppers which other mills are supposed to put into flooring and other clear stock for domestic market. Another plan is for the Australian buyer, when buying a specification containing both clear or select and merchantable, to specify that the merchantable is to be purchased from one mill and the selects or clears from another, in the hope that the first mill in cutting the merchantable will let selects and clears go into the cargo; the buyer thus hopes to get a double proportion of these desirable grades.

These buying methods are due to the competition prevailing amongst Pacific Coast manufacturers, a competition which leads them, after reducing the price to the lowest possible level, to further depreciate their assets and rob their stumpage by putting clears or selects into a cargo which calls for merchantable only. This is done occasionally through necessity in order to escape demurrage, but more often through carelessness, or as the only means of securing the business from the exporter sending out the enquiry. The exporter himself, profiting only on the turnover and caring nothing in many cases for the prosperity of the lumber industry, endeavors to force the mills from which he purchases to engage in this quality competition in order that he may build up a reputation with Australian buyers for shipping above-grade cargoes.

Unfortunately, when the lumber shipped is superior in quality to the grade called for, the inspection certificate does not show this to be the case. Where merchantable is called for, the inspection certificate forwarded states the cargo to be merchantable, even though the grade actually shipped may have been all select or clear.

This practice leads to two unfortunate results:

(a) The Australian buyer receiving a high-grade cargo, and seeing it described as merchantable in an inspection certificate originating in the same port as the cargo, has his taste spoiled. Year by year he becomes unwilling to take in anything but the best, whatever be the purpose for which the lumber is intended. He becomes convinced that Douglas fir and other trees on the Pacific Coast grow square and grade solid clears to the centre. When a real merchantable cargo arrives, the buyer does not read the grading rules to see if it is up to grade; he draws on his memory of previous high-grade cargoes, and puts in a claim if the latest arrival is not well up to his idea of the average of former purchases, regardless of the certificate upon which it was sold.

The fact that a cargo was sold on a definite grade and is equal to that grade is the least of the arguments in the case. An instance may be quoted where a claim was made on a Canadian cargo sold as merchantable, which was equal to merchantable, was passed as merchantable by an inspector, but was not equal to the merchantable being shipped by other mills at the time. A claim was made and refused by the shipper. The buyer of the cargo kept a section of one stick of the cargo, one foot in length, in his office for a long period, and told all buyers that this was what they received if they purchased Canadian timber.

(b) Another bad result of the present system of marking inspection certificates is that when a buyer is in the market he frequently specifies a merchantable equal to what he received in the "Mary Ann" or some other vessel months and years before. Probably the cargo of the "Mary Ann" was 50 per cent. above merchantable, yet neither the mill nor the buyer has any definite record of this fact. The order is filled, the cargo is graded merchantable, and goes forth. It is not considered equal to the memory of the "Mary Ann," and a claim results.

There is this to be said for the Australian buyer: The present system of grading gives him very little information; it merely places the cargo above a certain grade line, above which very wide variations are possible. Where two merchants in one town are in competition and each buys a cargo sufficient to last him several months, the one who receives the poorer cargo is in a serious position. No matter how good

K-5 ATTACHMENT bolted up under wood cross bars.

S-1½ Log Spur

"RELIANCE" RIVETED CHAIN. All Malleable link chain with steel pins without rollers; has extra long wearing surface to pin.

The Chains on Your Conveyer or Elevator are Mighty Important

A Broken Chain may tie up your whole plant—and your help and machinery are only profitable when they are actually producing.

JEFFREY CHAINS

Are Dependable—In Quality of Product and Enduring Service. There's a type to meet your requirements.

We carry a Big Stock of Saw Mill Chains and attachments, Sprocket Wheels, Gears, Buckets, Couplings, Hangers, Bearings, Etc. Write Dept. No. 6.

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STEEL THIMBLE ROLLER CHAIN — also made without thimbles. Especially adapted to Aprons, Elevators and Conveyors for Heavy Duty.

MALLEABLE ROLLER CHAIN—adapted to wood and steel apron conveyors; also elevators and conveyors handling non-adhesive, non-gritty bulk materials.

FLAT AND ROUND STEEL LINK CHAIN—fitted to general elevator and conveyor service in non-gritty or semi-gritty conditions.

DETACHABLE LINK CHAIN for general elevator and conveyor service in non-gritty conditions.

STYLE A STEEL BAR DRAG CHAIN—for short conveyors handling Sawdust, Shavings, etc.

VULCAN CHAIN, STYLE "C"—fitted to ordinary single and double strand conveyors in non-gritty or semi-gritty conditions.

VULCAN CHAIN, STYLE "B"

For Speed, Ease and Economy in Bucking and Felling

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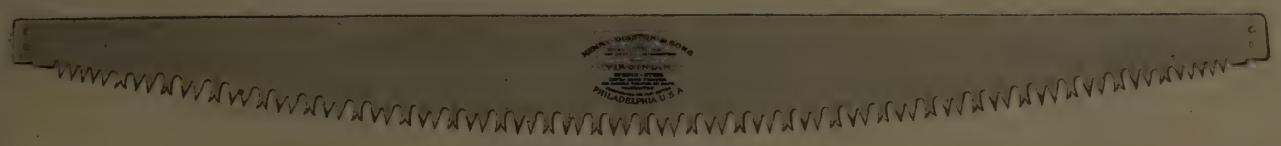

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a merchantable it may be, the poorer cargo is to all intents and purposes inferior lumber so long as the good cargo is in the market.

Buyers in Australia do not now place serious dependence on the inspection certificate except as a means of warding off common lumber and as a means of tallying the amount in the ship. As it has worked out in practice, since over-production has become so serious in the Douglas fir region, the present system of grading has resulted in preventing a fair proportion of strictly merchantable lumber from entering the Australian market. Competition amongst exporters has resulted in orders flowing chiefly to those mills who were known to be shipping as merchantable a grade containing a high proportion of select and clear.

This is contrary to the best interests of the country. As large a portion of commons should be used for studding, joists, rafters, and rough lumber in building a city in New South Wales as in building a similar city in British Columbia. Such is not the case, however. One rough, temporary fence in Sydney contained out of 122 consecutive boards 1 inch by 6 inches by 6 feet, 66 edge grain clears, every one a flooring board. A pile of roof battens in a Sydney yard 1 inch by 3 inches by 12 feet and up were in reality a pile of edge grain flooring strips. A woodworking shop in Adelaide was building railway cars and for sills about 8 inches by 20 inches by 60 feet was using close-grained sticks, flooring quality, picked out from a merchantable cargo.

Because of the loose grading system prevailing on the Pacific Coast the standard of lumber used is higher in Australia than in the Canadian and United States coast cities where the lumber is produced.

The quality demanded by the user in Australia is very frequently too high. High grades are used where common only are needed. Even at that there may be found in nearly every lumber importer's yard a pile of selects that has been picked out from merchantable and is being held for remanufacture into doors or joinery of some kind.

The exporter is selling large timbers, long timbers, selects and clears to the importer for the price of common lumber. Naturally, so long as this is the case the importer will need no common lumber. He is now getting something he needs, which he can get nowhere else, from the shippers of the Pacific Coast for less than the cost of production, chiefly because grading is neglected and producers compete senselessly.

The chief difficulty with the foreign market has always been that it took too little of the log. The present system of grading is decreasing the proportion of mill run that is acceptable to the Australian buyer. It is bad for forest conservation and it is bad for business.

The inspection certificate should show clearly the quantity of each grade that has gone into a ship. If merchantable has been called for and selects or clears are shipped, the inspection certificate should state the number of pieces, dimension and quanty shipped of each of the grades. The buyer would then know in each case that the shipper, for some reason, had made him a present, and so would the shipper. The buyer could not call for a similar cargo again without committing himself to paying for it. If all the uppers sent into Australia were paid for, they would not be scattered about so promiscuously in rafters, studding and rough board fences.

There is room for argument as to the advisability of creating new grades for the Australian market with the object both of encouraging the buying of a larger proportion of lower grades and the securing of adequate payment for the uppers now imported as merchantable.

Should, as is expected, the Australian tariff result in a continued and increasing importation of 6-inch by 12-inch sizes, the same result might be secured by increasing the differential in the list for this timber.

Such steps can only be successful if adopted by mills operating in greater co-operation than heretofore.

The basis for all consideration of this important feature of the export trade should be that, so far as we know at present, Australia must have Pacific Coast timber; that, just as common is used in Canada, so can it be used in Australia; and that, should the mills co-operate to force the acceptance of 75 per cent. of the log run in all cargoes at an average price $4 greater than the past five years' average, there would be neither objections from Australia nor diminution of orders. It is only necessary that the mills act together to the end that all exports receive equal treatment as to grade and price.

A draft of 125 men for forestry work in Great Britain and France left Creston, B.C., on April 16 for Brockville, Ont., whence they expect to proceed overseas almost immediately. All the men are woodsmen, many of them having followed this work all their lives. There are now nearly 10,000 Canadians engaged in lumbering operations in the British Isles, 5,000 of whom went over in forestry battalions, the balance being selected from overseas forces.

Col. C. McP. Edwards, D.S.O., commander of an Ottawa battalion, is reported to have received a gunshot through the shoulder. He is in hospital at Manchester, Eng. Col. Edwards was formerly sales manager of Watson & Todd, Limited, Ottawa.

The Pitiful Tale of Jennie Lind

Being One of a Series of Letters from a Sawmill Man to His Cub Salesman, William Smith, on the Art of Making Two Orders Grow Where Only One Grew Before

Dear William,—I have examined your last letter with the aid of a microscope in my frantic endeavors to find a reason why you failed to land the Williams' business. Now, I want you to answer me quick, if you can do so without swallowing your tonsils, why did you let that order get away from you? This is the third time I have asked you that question, and each time you come back with a beautiful story, which is a valuable addition to current fiction, but fails to put me in possession of the facts. I understand that was a ten-car order and just the grade of hardwood in which we specialize. We have it all over the other fellows in freight rates, service, and grades, and I am curious as to just what arguments you used to sell the other fellows' stock.

Maybe your course in salesmanship back-fired. Possibly you failed to observe the rules of character delineation as laid down in lesson 13. You probably got the customer's bump of combativeness mixed with his organ of self-esteem. In any event, let me know, and let me know quick. Cut out the Alice in Wonderland stuff, and give me the unadorned facts. Your stories are delightful, but unconvincing; they don't help out the payroll a little bit. You remind me somewhat of a character I once ran across in a Cleveland hotel, except that he had it all over you in the come-back. It will tell you how he came back at Jim Murphy, who is some little come-backer himself.

Sometimes Looks Are Deceptive

It happened at lunch, and as Jim and I took our seats at the table we gave but a casual glance at the only other occupant, who was a tall, raw-boned individual, with a luxuriant growth of shrubbery extending from the lower point of his chin to his thyroid cartilage. His lank frame, upon which a cheap, hand-me-down suit hung like garments upon a clothes rack, his generally unkept appearance, and the skill with which he loaded his knife with food, backed it down his throat unloading it like a dump-cart filled with sawdust, marked him as a product of the haymow and the corn crib. Both Jim and I noticed all these things, but what we both overlooked was the shrewd twinkle under the bushy eyebrows.

Jim, who is an incorrigible joker, kept eyeing him while reading over the menu. Suddenly, looking up at me, he said: "I see they have filet mignon en casserole on the bill. If I knew whether the casseroles were boiled or fried I might order some. The only way to cook casseroles is to fry 'em." Then, turning to the stranger, he enquired: "Friend, what is your opinion? Should casseroles be boiled or fried?"

As soon as the stranger spoke I had him classified. There was no mistaking that nasal twang; he was a down-east Yankee. He cleared his throat and reached for a toothpick, which he proceeded to manipulate with noisy skill. Then, with a dangerous gleam in his eye, he said: "I reckon I can answer your question best by relating a little incident of my boyhood days. You see, there was two of us boys on the old homestead, Henery and myself, and we managed to keep things pretty well stirred up, I kin tell you. We kept dad pretty tolable busy whalin' the liver out of us with a blue beech gad, but, bless your heart! it didn't do a mite of good. I guess, now as I look back at it, we was pretty tolable wuthless and no-account. What Henery couldn't think of I could, and, between the two of us we managed to make life a burden for the whole community.

Enter Jennie Lind

"One day, comin' hum from school, we run acrost the most Godforsakenest lookin' yaller cat you ever sot eyes on. You know how Godforsaken a cat kin look after bein' starved for a week and bein' chased all over hel's half-acre by a passel of no-account, stone-throwin' boys? Well, this cat looked like that, only a whole lot wuss. He had lost most of his fur—ett off by moths, I guess—and was blind in one eye. He had such a woe-begone and friendless look that our tender, boyish hearts was touched; and, besides, we thought we might work him into some new scheme of devilment if we took him hum. Dad kicked like a bay steer when he saw him, and allowed he wouldn't have no such cat around the house, so we hid him in the barn.

"That night he got out of the barn and clim' up on the ruff, and the way he yeowled and caterwauled was peowerful. Dad fairly frothed at the mouth, and allowed we'd have to git rid of him or he'd shoot him and whale the daylights out of Henery and me. Me and Henery we took counsel together, and the next morning we took him over to Three-Mile Creek and tied a stun around his neck and throwed him in. Then we hot-footed it for hum, but, when we got hum, there he was as big as life—a little damp, but just as lively as ever. We took him out and tied him in the corn crib before dad got in from the field. You remember about that time the country was agoin' plumb

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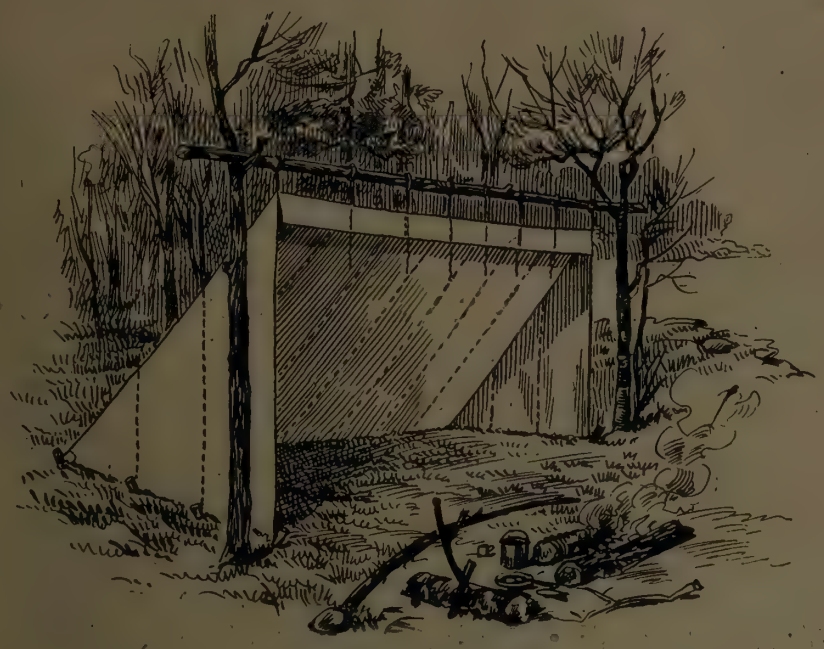

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The Most Serviceable Duck Made

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Jenckes Boilers

We make a Specialty of

Horizontal Tubular Boilers

for Saw Mill work. They are made in an extensive plant built and equipped for the purpose with all modern appliances.

The three prime elements of Design, Material and Workmanship receive equal and most painstaking attention, ensuring a boiler warranted to give perfect satisfaction and long service.

The Jenckes Machine Co., Limited

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crazy over Jennie Lind, the great Swedish singer, so we named the cat Jennie Lind, because he had such a beeutiful vice.

"That afternoon me and Henery took dad's shotgun and went out into the woods to shoot pigeons. Henery loaded the gun and he got her so blamed full we was afraid to shoot her off, so we took her back hum and stood her in the usual corner in the kitchen. That night we had a full moon, and it was just as light as day. Along about midnight that ornery cat got loose somehow and clim' up on the ridge-pole of the corn crib and proceeded to lift his vice to the silvery moon. There is somethin' heartrendin' about the vice of a cat when he pours out his soul to the stilly night. There is somethin' that reaches right down and grabs your heart, your gizzard, and your whole insides, and makes you want to be up and doin'.

"Henery and me, was wide awake at the first yeowl. We could see Jennie Lind's finish approaching with great rapidity; catastrophy was in the air. We heard dad roll over in bed and swear. We clim' out of bed and foregathered at the winder where we could view the scenery. We could see Jennie Lind perched on the ridge-pole of that corn crib with his back bowed up and his tail swelled fit to bust. What little fur he had left was stickin' up jest like the quills on a porcupine. He was jest a yeowlin' and a spittin' and a goin' on scandlous, and, pretty soon, we heerd a answerin' yeowl from below, and then there was a duet which was the most heartrendin' thing you ever listened to. First Jennie Lind would tear off a few screeches and do a few mournful quavers, usin' his head register continuous. Then the other cat would answer back, runnin' up and down the scale from A to izzard. Then they'd both jine in and split the silent night with the most infernal combination of noises you ever heerd. A Wagner opry was music alongside of it.

"We heerd dad git out of bed swearin' vengeance on that cat. We could hear the pat, pat of his bare feet on the kitchen floor. He fairly oozed profanity when he telescoped his superior toe on the corner of the washstand. Then next thing we saw was his long shanks rushin' through the moonlight straight for the fence by the corn crib, and he was a draggin' the old gun by the muzzle. He clim' up on the two-by-four with the gun in his hand, and begun to edge along the fence to get in range. There was a deep cesspool alongside the fence, and he stopped right over that, cocked the gun, and took keerful aim. It was an anxious moment. The silvery moon was a shinin' peaceful overhead, all unaware of the tragedy impendin' down below, and Jennie Lind was a prancin' back and forth on the ridge-pole, executin' crescendos and diminuendos, and a tryin' the upper register of his vice for a final bust of song. The other cat jined in, and they went to it with a chorus of yeowls that set your teeth on edge and filled the night with agony.

"I have often wondered what great sorrow a cat has on his chest when he gives forth such hideous, nerve-rackin' screeches in the dead of night. The wail of a lost soul in search of paradise is a cheerful sound compared to the song of a cat when his soul is wrenched with pain. Henery and me, we watched the pitcher, which was an inspirin' one. There was dad, perched on the fence, clad in his nightshirt, with his long shanks reflectin' the rays of the silvery moon, and Jennie Lind on the ridge of the corn crib a tyin' hisself into hard knots tryin' to give full expression to the agony of his soul.

The Gun Had a Come-back

"Dad took keerful aim and fired. Well, sir, there was an explosion that rocked the yearth. It sounded like a combination of bomb-shells, siege-guns and yearthquakes all rolled into one. Jennie disappeared from the top of the corn crib, and 'the places that knowed him once knowed him no more forever.' Dad seemed to rise right up in the air, and the atmosphere was full of white nightgown, long spraddlin' shanks, and cuss words. Then there was a splash as he landed right plumb in the dead-centre of that cesspool. He clim' out of there in a hurry, I kin tell you, and came a sashyin' across the lot, spillin' profanity at every jump, and his long nightgown a streamin' out behind and his white spinlin' shanks a workin' like the pistons of a steam engine as he made for the door of the kitchen.

"Henery and me, we adjourned sine die. We had seen enough. We had no appetite for meetin' 'a strong man in his wrath.' We was just a crawlin' into bed when dad opened the door of our room to see if we was asleep. Then quiet settled down upon the night and all was still.

"Next mornin', when we went down stairs, dad was in bed and mother was a rubbin' him with liniment. He called me and Henery into the room and says, kind of reproachful like: 'Boys, did you load that gun?' We said, 'Yes, father,' as dutiful sons should. 'Well,' says he, 'why didn't you tell me?' I says: "Father, we reckoned you'd find it out some day.' And ever since that time I have always maintained that casseroles should be biled."

Well, now, Bill, perhaps you have been wondering what all this has to do with the Williams order which you did not land; or have you seen the point? You see, this fellow with the thrilling tale about his dad and the yaller cat had a fine literary gift. He could tell a story in language which made you sit up with your ears cocked all the time. In fact, his stories were just as good as yours are when you are explaining how someone else gets an order that you have been after. This fellow's story was only a side-line. He was a real artist in more senses than one. He left Jim in exactly the uncomfortable position that Jim had expected to have put the farmer in.

Some day, when you have been at the selling business a little longer, perhaps you will begin to see daylight, and then your stories will be less fantastic, and you will leave the other salesmen just about where that Yankee farmer left Jim when Jim tried to butt in and play him for an easy mark.

Very truly yours,

John Mitchell.

Imports of Timber into Belfast

The import of log timber into Belfast, Ireland, for the year ending December 31, 1916, shows an increase over 1915 of nearly a quarter of a million cubic feet, although short of the average of the three years, 1912, 1913 and 1914, by almost 600,000 cubic feet. The following are the imports for 1916 as compared with those for 1910:—

	1910. Cubic feet	1916. Cubic feet
White pine	199,156	38,701
Oak	19,567	Nil.
Elm	29,404	Nil.
Birch	17,573	1,271
Rock elm	119,091	Nil.
Teak	144,422	Nil.
Pitch-pine	532,581	366,871

There has been a great shortage of timber of all descriptions. With regard to soft woods, there was a considerable falling off in the importations of Canadian spruce and Scandinavian red and white fir. During the year, freights touched the highest ever known, spruce deal freights from Canadian ports receiving as high as £19 10s., while, in normal times, the figure was around £2. The outlook for 1917 is not bright, unless the war should come to an early end. Even then, importers and merchants will be very slow to purchase large quantities, as a gradually falling freight market may be anticipated which will have a tendency to induce hand-to-mouth buying for a year, at least, following the cessation of hostilities. During the years 1915 and 1916, however, plans for buildings representing quite half a million pounds sterling have been passed by the Belfast Corporation, and only a very small percentage of the work has been proceeded with. As soon as normal conditions prevail again, therefore, there should be a busy period for the timber and allied trades.

Great Britain's Imports of Spruce

The Timber Trade Journal, London, England, in its annual number, which is now before us, publishes an interesting review of the spruce market in Great Britain during the year 1916. After discussing the various ups and downs of prices and freights during the year, the report says: "Taking the year as a whole, in spite of a very precarious period in the summer and a multiplicity of difficulties and anxieties, trading generally was once again of a prosperous character, and there is every cause for congratulation to all concerned in passing so successfully through such abnormal times."

Spruce Deals Statistics for Ten Years

	Stock.		Consumption.		Price.						Freight.	
	High.	Low.	High.	Low.	Highest.			Lowest.			High.	Low.
	Stds.	Stds.	Stds.	Stds.	£	s.	d.	£	s.	d.		
1916	34,560	12,520	8,880	2,750	30	0	0	22	0	0	400/0	225/0
1915	35,960	5,500	10,640	2,990	19	0	0	13	10	0	200/0	90/0
1914	25,270	11,950	10,930	4,470	14	10	0	8	10	0	80/0	35/0
1913	36,030	7,970	9,430	3,640	10	15	0	9	7	6.	60/0	40/0
1912	27,320	8,210	11,400	4,500	10	15	0	8	7	6	70/0	45/0
1911	29,320	9,080	10,830	5,500	8	7	6	7	17	6	45/0	32/0
1910	31,520	11,840	11,750	5,000	8	7	6	8	0	0	37/6	30/0
1909	25,360	11,600	14,460	4,500	8	2	6	7	12	6	37/6	30/0
1908	31,640	9,700	11,250	5,100	7	15	0	7	7	6	37/6	27/6
1907	43,100	18,700	15,340	6,350	8	5	0	7	2	6	41/3	35/0
Average for 10 years	32,008	10,707	11,491	4,480	12	11	9	9	19	6	....	....

(Compiled by Smith & Tyrer, Ltd., Liverpool.)

A Fine Shipment of Birch Plank

An interesting shipment of birch planks was recently made by Edward Clark & Sons, Toronto, to the United States, for use in the production of automobile trucks for the United States army. The shipment consisted of a car of 12,000 feet of No. 1 common and better 5-inch birch, which averaged 12½ inches in width and graded 80 per cent. first and seconds. This car contained a few pieces of stock 5 in. thick by 32 in. wide by 14 ft. long, which did not show a single spot on either side of the plank. The stock came from the Province of Quebec.

HAMILTON
Steam Tension Band Mill
Single and Double Cutting

Special Features of this Band Mill:

(1) Tension on saws maintained by steam—quickest and most sensitive form of tensioning yet devised.
(2) Unbreakable saw guide raised and lowered by steam—**first used on our machine.**
(3) Great saving in saws—actual tests have proven saws have a longer life on this machine.
(4) Both top and bottom wheels instantly aligned by screw adjustment.
(5) Takes saws 12 in. to 14 in. wide.
(6) Heavy, rigid, strong and accurately built throughout.
(7) Built by expert workmen in a plant that has been manufacturing high grade sawmill machinery for sixty years.

May we send you a list of satisfied users?

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WHOLESALE LUMBER
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Saw Mills at
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EXCELLENT PLANING MILL FACILITIES
Special Attention Given to Prompt Delivery

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Limited
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SPRUCE AND **BIRCH**
GOOD STOCKS PROMPT SHIPMENTS SATISFACTION
C. A. SPENCER, LIMITED
Wholesale Dealers in Rough and Dressed Lumber, Lath and Shingles
Offices—McGill Building, MONTREAL, Quebec

EDGINGS

Ontario

The Hocken Lumber Company, Limited, Otter Lake Station, Ont., are erecting a mill at Espanola, Ont.

The Tillson Company, Limited, Tillsonburg, Ont., have decided to devote their attention exclusively to the retail end of their lumber business, and have closed up their plant for the production of interior trim, etc.

Keenan Brothers, Limited, Owen Sound, Ont., are erecting a building 63 feet by 130 feet, three storeys, full mill construction, built of brick, and expect to move the Eureka Refrigerator Company to Owen Sound in the Fall.

The E. Long Manufacturing Company, Orillia, Ont., are commencing work on the erection of a new machine shop. The building will be two storeys, 55 x 100 feet, brick construction and the work will be done by day labor. The president of the company is Mr. E. Long, 38 West Street S., and the manager Mr. W. W. Bain, Neywash Street E.

Brennens Limited, have been incorporated with head office at Hamilton, Ont., and capital stock of $600,000, to carry on business as lumbermen, manufacturers of and dealers in paper, pulp, logs, lumber, timber, etc. Among those interested are J. S. Lovell, C. D. Magee, W. Bain, R. Gowans, and J. J. Dashwood, all of the city of Toronto.

J. J. Carrick, M.P., Port Arthur, Ont., who was the successful tenderer for the Pic River pulpwood concession in the Thunder Bay District, has organized a company which will erect a 150-ton groundwood mill and a newsprint mill with a capacity of 200 tons per day. The plant will be located directly north of and adjoining the city of Port Arthur.

The Fort Frances Pulp and Paper Company, Fort Frances, Ont., have been obliged to shut down one unit of their newsprint mills, on account of the opening of the waste water gates at Fort Frances and International dams by Dominion Government engineers. This step has been taken in order to create additional storage to take care of spring freshets.

Wilson Bros., Limited, Collingwood, Ont., whose plant was recently destroyed by fire, are cleaning up the debris as rapidly as possible and expect to rebuild at an early date. Several large contracts which they had in hand at the time of the fire have been placed with outside firms to complete. One of these was for a large amount of work at Camp Borden. The destruction of the Wilson Bros.' plant left Collingwood and its vicinity without any planing mill and the growth of the district makes it essential that one should be established without delay. On account of the activity of the shipbuilding plant at Collingwood and other important industries, there is now a great insufficiency of house room in Collingwood, and a large number of houses were to have been built this summer. Mr. Wilson and Mr. H. A. Currie are the directoors now in charge of the business.

Eastern Canada

The Brown Corporation, Portland, Maine, has purchased the mills and timber limits at Tobin, P.Q., of the Trois Pistoles Pulp and Lumber Company.

Jos. Poissant & Company, lumber dealers, Montreal, P.Q., have been registered. Jos. Poissant, A. Turcotte and Chas. Beauchemin are interested.

Fire recently destroyed the sawmill and machinery belonging to the Mac Lumber Company, Long Swamp, P.Q., near Bury, P.Q. The loss amounted to $12,000, and was partially covered by insurance.

The Great Eastern Paper Company, Limited, incorporated with a capital of $600,000, will carry on business in the city of Quebec. The powers include the manufacture and sale of lumber, paper and pulpwood.

The Nottaway Pulp and Lumber Company, Limited, has been incorporated with a capital of $20,000. Messrs. J. E. Fortin and U. Fortin, of Bell River, P.Q., D. Gourd, C. A. Twitchell and J. R. Giguere are interested.

The Mooney & Van Dyke Company, Limited, has been incorporated with head office at Quebec, P.Q., and capital stock of $40,000. The company will operate mills and manufacture pulp and paper. They will also deal in lumber and pulpwood. Those interested are M. J. Mooney, 15 De Salaberry Street, Quebec, P.Q., and G. H. Van Dyke, Quebec.

The Paper & Hardware Products, Limited, have been granted letters patent with head office at Montreal, P.Q., and capital stock of $49,000, to carry on business as manufacturers of and dealers in paper, chip board, straw board, pulp, pulpwood, logs, lumber, timber, etc. Among those interested are W. A. Lyons, H. Larin, P. A. Donnelly, U. Pigeon and A. Savard, all of Montreal.

The Panuke Pulp and Power Company has been organized to operate upon freehold timber limits located in the counties of Hants and Halifax, N.S. The company will operate a pulp grinding mill, a band-saw mill, with a capacity of 35,000 feet a day, planing mill, etc. They are acquiring 26,000 acres of freehold timber land, and estimate that their standing timber amounts to

95,000,000 feet board measure, consisting of spruce, hemlock and some hardwood, and 75,000 cords of pulpwood. The pulp grinding mill will be placed in operation at an early date.

Western Canada

F. W. Hooker, Ltd., lumber dealers, Selkirk, Man., have been incorporated.

The North American Lumber Company, Limited, have opened a branch at Lockwood, Sask.

The Star Lumber Company, Limited, has been incorporated with head office at Calgary, Alta., and capital stock of $20,000.

H. S. Clements, M.P.P., Comox, B.C., is contemplating the erection of a pulp plant to cost $2,000,000 at Port Mellon, B.C.

The Northland Lumber Yards Limited, have been incorporated with head office at Big Valley, Alta., and capital stock of $35,000.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 21st day of May, 1917, for the purchase of License X652, to cut 4,342,000 feet of fir, cedar, hemlock, and balsam on an area adjoining Lot 975, Snout Point, Toba Inlet, Range Coast District. Two years will be allowed for the removal of the timber.

The Reynolds Shipping, Timber and Insurance Agency have leased a mill at Port Moody, B.C., about 12 miles from Vancouver. They will increase its capacity to about 150,000 per day and expect to begin sawing operations at an early date. The firm will do a general lumber business, but will devote a good deal of attention to the export trade.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 21st day of May, 1917, for the purchase of License X873, to cut 5,000,000 feet of spruce, fir, cedar and hemlock on an area adjoining Lot 7363A, situated west of Cranberry Lake, Cariboo District. Three years will be allowed for the removal of the timber.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 21st day of May, 1917, for the purchase of License X920, to cut 4,165,000 feet of hemlock, cedar and spruce and 30,000 lineal feet of piling on an area adjoining Lot 1501, Juskatla Inlet, Queen Charlotte District. Three years will be allowed for the removal of the timber.

The Rainy River Pulp and Paper Company will commence to manufacture 20 tons of kraft pulp in their mill at Port Mellon, B.C., early this month. The headquarters of the company are at the Standard Bank Building, Vancouver, which is about 25 miles from the mill. The company has been incorporated for $1,000,000. Robert Sweeny, 120 Broadway, New York, is president and organizer of the company. E. L. Mahn is vice-president and treasurer, and J. L. McCrary is secretary. Mr. James Beveridge, formerly with the Dryden Timber and Power Company, Dryden, Ont., is the practical man in charge of the company's operations. The mill is located on Howe Sound, B.C., and has excellent facilities for transportation, both by rail and water. The company will make kraft pulp and kraft paper.

Forestry Association Secretary on Lecture Tour

Mr. Robson Black, Secretary of the Canadian Forestry Association, is on a lecture tour of Western Canada, during which he will deliver addresses to many of the Canadian Clubs and other public organizations at Winnipeg, Regina, Saskatoon, Calgary, Edmonton and throughout British Columbia. The addresses will take up various aspects of forest conservation as related to the nation-wide campaign for thrift.

Mr. J. S. Bock, manager of the Eagle Lumber Company, Ltd., Montreal, has been elected president, in succession to the late Mr. J. A. Villeneuve. The capital of the company has been increased from $90,000 to $500,000. Mr. J. Parquette, manager of L. Villeneuve & Co., Ltd., succeeds the late Mr. J. A. Villeneuve as president of that company.

The quantities of millboard and wood-pulp board imported into the United Kingdom from outside countries during the years 1913, 1914, and 1915 was as follows: 1913, 1,319,078 cwt.; 1914, 1,275,662 cwt.; 1915, 1,212,982 cwt. Of these quantities the imports from Canada were as follows: 1913, 225,615 cwt.; 1914, 169,802 cwt.; 1915, 211,729 cwt.

During the past decade important readjustments have taken place amongst the countries supplying Australia with timber, and in these readjustments Canada's share of the trade has decreased, both in proportion and total.

The Victoria Lumber and Manufacturing Company, Ltd., Chemainus, B.C., recently cut in two days, on a rush order for China, 100,000 feet of timbers, 18 x 18 in. to 24 in. x 24 in., 24 to 40 feet long.

Mr. R. G. Haley, of Haley & Sons, St. John, N.B., together with Mrs. Haley, is on a visit to friends in Vancouver, B.C.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
1 x 6 in. 10/16 ft. merchantable	29 M
1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

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Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa, Deputy Minister.
December 20th, 1912.

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The Best ROPE for More Than Three Generations

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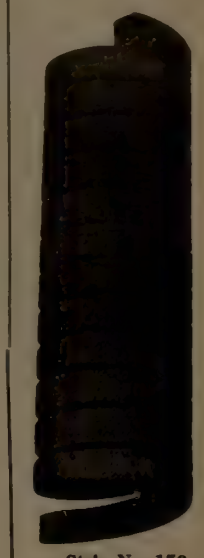

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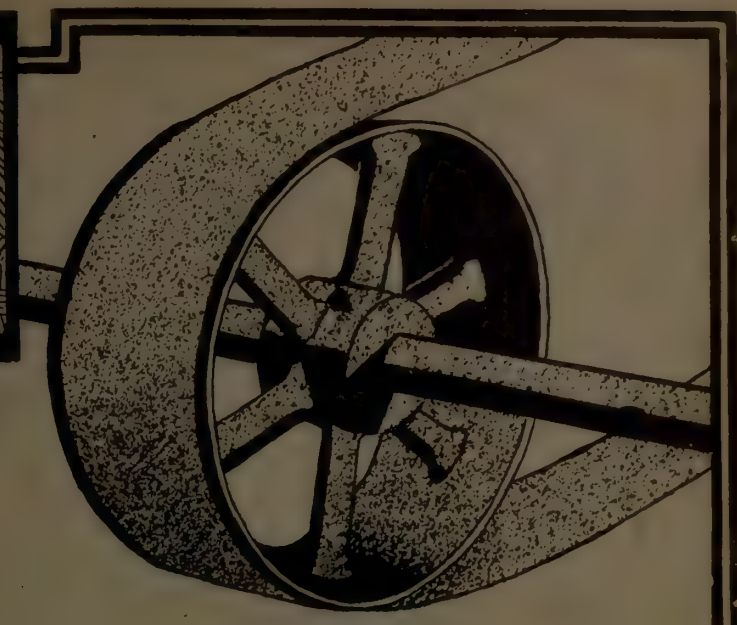

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Car Lots

White Pine:		
1 inch No. 1 cuts and better.	$50 00	52 00
1½ inch No. 1 cuts and better.	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	32 00	33 00
1 x 6 common and dressing	33 00	34 00
1 x 8 common and dressing	33 00	34 00
1 x 10 common and dressing ..	35 00	36 00
1 x 12 common and dressing...	38 00	40 00
1 x 10 and 12 mill cull stocks.	28 00	29 00
1-in. mill cull sidings		26 00
5/4 and 6/4 x 4 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 5 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 6 m.r., m.c. out.	33 00	34 00
5/4 and 6/4 x 8 m.r., m.c. out.	34 00	35 00
5/4 and 6/4 x 10 m.r., m.c. out		37 00
5/4 and 6/4 x 12 m.r., m.c. out	38 00	40 00
2 x 10 common	33 00	35 00
2 and 3 x 12 common	35 00	40 00
1 x 8 box and common		30 00
1 x 10 inch box and common.		32 00
1 x 12 inch box and common.		32 00
1-in. mill run sidings		30 00
1-in. mill run shorts		25 00
1-in. mill run Norway		26 00
2-in. mill run Norway	30 00	32 00
Norway, c. and cf. 1-in.		35 00
Norway, c. and cf. 1½-in.	37 00	38 00
Norway, c. and cf. 2-in.	35 00	37 00
Spruce mill run 1-in. and 2-in.	28 00	30 00
Spruce mill culls	25 00	26 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		22 00
1 x 6-in. x 9 to 16 ft.		26 00
1 x 8-in. x 9 to 16 ft.		27 00
1 x 10 and 12 in. x 9 to 16 ft.		27 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		25 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		27 00
2 x 4 to 12 in., 12 and 14 ft. .		26 00
2 x 4 to 12-in., 18 ft.		30 00
2 x 4 to 12-in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		20 00
Clear in. B.C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		38 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		39 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		39 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		40 00
10x20, 18x20, up to 32 ft.		40 50
6x18, 8x18, up to 32 ft.		40 50
6x20, 8x20, up to 32 ft.		40 50
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain..		41 50
Fir flooring, 1 x 4, edge grain..		44 50
Fir flooring, 1 x 4, flat grain..		37 50
No. 1 and 2, 1-in. clear Fir rough		48 00
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		54 00
No. 1 and 2, 2-in. clear Fir rough		50 00
1½-in. No. 1, 4-ft. pine lath...		5 50
1½-in. No. 2 4-ft. lath		5 25
1½-in. 32-in. pine		2 25
1½-in. No. 1 4-ft. hemlock lath.		4 25
1½-in. mill run hemlock lath..		4 00
XX B. C. cedar shingles		2 95
XXX 6 butts to 2-in.		4 20
XXXXX		4 50

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	$65 00	71 00
Ash, white, No. 1 common....		45 00
Ash, brown, 1sts and 2nds, 4/4		57 00
Ash, brown, com. and bet. ...		45 00
Ash, brown, 1sts and 2nds, 6/4 and 8/4		65 00
Birch, 1st and 2nds, 4/4		50 00
Birch, No. 1 com. and bet., 4/4		40 00
Birch, 1st and 2nds, 6/4 and 8/4		55 00
Birch, 1st & 2nds, 10/4 and 12/4		65 00
Birch, 1st and 2nds, 16/4		70 00
Basswood, 1sts and 2nds, 4/4 ...		50 00
Basswood, No. 1 com. and bet., 4/4		43 00
Basswood, No. 2 and 3, common		22 50
Basswood, 6/4 and 8/4, 1sts and 2nds		55 00
Basswood, 6/4 and 8/4, com. and bet.		42 00
Basswood, 4/4, No. 2 com. and bet.		37 00
Soft elm, 1sts and 2nds, 4/4 ...		45 00
Soft Elm, No. 1 com. and bet., 4/4		38 00
Soft Elm, No. 2 and 3 common.		19 00
Soft Elm, 6/4 and 8/4, 1 and 2		50 00
Rock Elm, 1sts and 2nds, 6/4 & 8/4		55 00
Rock Elm, No. 2 com. and bet., 6/4 and 8/4		40 00
Soft Maple, 1sts and 2nds, 4/4..		40 00
Soft Maple, com. and bet., 4/4.		33 00
Soft Maple, 6/4 & 8/4, 1sts and 2nds	45 00	50 00
Hard Maple, 1sts and 2nds, 4/4		43 00
Hard Maple, com. and bet., 4/4		37 00
Hard Maple, 12/4 and 16/4, 1sts and 2nds	65 00	70 00
Red Oak, plain, 1sts and 2nds, 4/4		62 00
Red Oak, plain, No. 1 com., 4/4		43 00
Red Oak, plain, No. 2 com., 4/4		32 00
Red Oak, plain, 1sts and 2nds, 6/4 and 8/4		65 00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00	85 00
White Oak, plain, 1sts and 2nds, 4/4		62 00
White Oak, plain, No. 1 com, 4/4		43 00
White Oak, plain, No. 2 com., 4/4		32 00
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	62 00	65 00
Red and White Oak, plain, No. 1 com., 5/4 and 6/4		45 00
Red and White Oak, plain, No. 2 com., 5/4 and 6/4		33 00
Red and White Oak, plain, 1sts and 2nds, 8/4		70 00
Red and White Oak, plain, No. 1 com., 8/4		50 00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00	85 00
White Oak, ¼ cut, 1sts and 2nds, 4/4		89 00
White Oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds		92 00
White Oak, ¼ cut, No. 1 com.		57 00
Hickory, 1sts and 2nds, 4/4 ...		62 00
Hickory, 6/4 and 8/4, 1sts and 2nds		70 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:.		
1-in. x 7-in. and up	$55 00	57 00
1¼-in. and 1½-in. x 8-in. & up	64 00	67 00
2-in. x 7-in. and up	65 00	68 00
No. 2 cuts 2 x 8-in. and up...	42 00	45 00
Pine good strips:		
1-in.	42 00	44 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	53 00	56 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	45 00
1-in. x 4-in. to 6-in.	32 00	34 00
1¼-in. and 1½-in.	53 00	55 00
2-in.	54 00	56 00
7-in. to 9-in. A sidings	27 00	30 00
Pine, No. 1 dressing sidings ...	35 00	38 00
Pine, No. 1 dressing strips	30 00	33 00
Pine, No. 1 dressing shorts....	28 00	30 00
Pine, 1-in. x 4-in. s.c. strips.....		30 00
Pine, 1-in. x 5-in. s.c. strips.....		31 00
Pine, 1 in. x 6 in. s.c. strips ...		33 00
Pine, 1-in. x 7-in. s.c. strips.....		30 00
Pine, 1 x 8 in., s.c., 12 ft. to 16 ft.		34 00
Pine, 1-in. x 10-in. M. R.		35 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	31 00	32 00
Pine, s.c. shorts, 1 x 4 to 6 in..	24 00	26 00
Pine, s.c. and bet., shorts, 1 x 5		25 00
Pine, s.c. and bet., shorts, 1 x 6		27 00
Pine, s.c. shorts, 6'-11', 1"x 10"		30 00
Pine box boards:		
1"x 4" and up, 6'-11'		24 00
1"x 3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12 ft. and up	25 00	27 00
Pine, mill culls stock, 1 x 12 ..	28 00	30 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		22 00
O. culls r & w p	15 00	16 00
Red Pine, log run:		
mill culls out, 1-in.	26 00	28 00
mill culls out, 1¼-in.	26 00	28 00
mill culls out, 1½-in.	26 00	28 00
mill culls out, 2-in.	28 00	30 00
mill culls, white pine, 1"x 7" and up	21 00	26 00
Mill run Spruce:		
1"x 4" and up, 6'-11'	18 00	23 00
1"x 4" and up, 12'-16'	26 00	27 00
1"x 9"-10" and up, 12'-16'..	27 00	33 00
1¼"x 7" 8-9" and up, 12'-16'	27 00	33 00
1¼"x 10" and up, 12'-16' ...	27 00	34 00
1½" & 2"x12" and up, 12'-16'		36 00
Spruce, 1-in. clear (fine dressing and B)		37 00
Hemlock, 1-in. cull	15 00	18 00
Hemlock, 1-in. log run	21 00	22 00
Hemlock, 2x4, 6, 8, 10, 12/16'..	23 00	26 00
Tamarac	19 00	20 00
Basswood, log run, dead culls out	22 00	24 00
Basswood, log run, mill culls out	28 00	26 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1¼, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	18 00	19 00
Boards, 1 and 2 in.	18 00	20 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$55 00
1 in., 8 in. and up wide	65 00
1¼ and 1½ in. and up wide	67 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	52 00
6/4 x 8 and up No. 1 and better	63 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	54 00
8/4 x 6 and up No. 2 and better	56 00
6/4 x 6 and up No. 3 and better	48 00
8/4 x 6 and up No. 3 and better	52 00
No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1¼ in., 8 in. and up wide	59 00
1½ in., 8 in. and up wide	59 00
2 in., 8 in. and up wide	62 00
2½, 3 and 4 in., 8 in. and up wide	75 00
4 in., 8 in. and up wide	85 00
No. 2 Cuts	
1 in., 6 in. and up wide	34 00
1¼ in., 6 in. and up wide	47 00
1½ in., 6 in. and up wide	47 00
2 in., 6 in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6 in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide....	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1 in. x 4-in.	29 00
1-in. x 5-in.	29 00
1-in. x 6 in.	30 00
1 in. x 8-in.	31 00
1 in. x 10-in.	33 00
1-in. x 12-in.	35 00
1 in. x 13 in. and up	35 00
1¼, 1½ and 2 in.	32 00
No. 1 Barn	
1 inch	34 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	30 00 36 00
1¼, 1½ and 2-in.	32 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	29 00 33 00
No. 1, 1, 1¼, 1½, 2-in.	29 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	24 00 27 00
No. 2, 1¼, 1½, 2-in.	24 00
Mill Culls	
Mill run culls, 1-in.	23 00
1, 1¼, 1½ and 2-in.	24 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 85
No. 2, 48-in. pine	4 60
No. 1, 48-in. pine	5 00
No. 3, 48-in. pine	4 15
Hemlock Lath, 48-in.	4 15

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension.	S. 1 S. and 1 E.			
	6 ft.	8 ft.	10 ft. 14 & 16 ft.	
2 x 4, 6, 8 ..	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.

2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 4 6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12; 8 16 ft.	28 50
2 x 10 and 2 x 12; 18, 20, 22 ft.	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50
No 1 Common Boards	
4 inch	23 00
6 inch	25 50
8, 10, 12 inch	27 50
Mixed widths	26 50
Flooring.	
4 or 6 inch No. 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	29 00
Shiplap—Finished.	
6 inch	24 00
8, 10 and 12 inch	25 00
Siding.	
6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00
Lath.	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed) ...	4 50

PINE—ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 16
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft. ...	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft. ..	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft. ..	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft. ..	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft. ..	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft. ..	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	37 00
Nos 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos 1 and 2, 1 x 4 in. F. G.	30 00
Nos. 1 and 2, 1 x 6 in., F. G.	35 00
No. 3, 1 x 4 in.	28 00
No. 3, 1 x 6 in.	33 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ¾ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ¾ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers, 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 58)

You Can See This At Each Shift In Many Plants

The manager was showing his visitors around the factory just at 12 o'clock noon.

The employees were leaving.

"How do your employees manage to get to the exit at 12 o'clock? What time must they quit working?"

"Oh, a couple of minutes to 12, I guess."

"Well, by jove, that must cost a lot of money in the course of a year."

Prices from $135.00 up

Overhead expense is the big item that eats into your profits. It is a factor in every business that needs close watching. The conversation printed above is a typical instance of needless overhead expense. Let your employees travel from their work to the exit of your plant on ***their*** time and ***not*** yours.

Remember you pay a man for what he does ***at*** a machine—not for the walking he does coming and going.

An **International Time Recorder** will see that you only pay your employees for the actual time they work for you.

It may be that you have Time Recorders. Are they so located in the factory that walking time ***is not your*** loss? It will pay you to look into this.

Send for our latest literature on this subject

The International Time Recording Company of Canada, Limited

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400 Electric Railway Chambers

F. E. MUTTON, General Manager
28 Anderson St.
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Toronto Phone—Col. 622.

MONTREAL
W. A. Wood, Jr., Sales Agent
Cartier Bldg., Cor McGill and Notre Dame Sts.
Phone—Main 7025

VANCOUVER—R. Donohoe, Sales Agent, **817 Pender Street**

CURRENT LUMBER PRICES — Continued

No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	36 - 38	23 - 25	14 - 16
5/4 to 8/4	42 - 45	28 - 30	16 - 18
10/4 to 16/4	48 - 52	33 - 35	20 - 22

RED BIRCH

4/4	50 - 52	30 - 21	18 - 20
5/4 to 8/4	54 - 56	32 - 34	18 - 20

SAP BIRCH

4/4	45 - 47	30 - 32	18 - 20
5/4 and up	50 - 52	32 - 34	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	38 - 40	28 - 30	18 - 20
Thicker	40 - 42	30 - 32	20 - 22

PLAIN OAK

4/4	52 - 54	33 - 35	19 - 21
5/4 to 8/4	51 - 53	29 - 31	17 - 19

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	56 - 58	31 - 33	18 - 20
10/4 and up	69 - 81	43 - 45	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in..	109 00
Selects, 1 to 2 in.	99 00
Fine common, 1 in.	74 00
Fine common, 1¼ to 2 in.	76 00 78 00
No. 1 Cuts, 1 in.	59 00
No. 1 Cuts, 1¼ to 2 in.	69 00 74 00
No. 2 Cuts, 1 in.	42 00
No. 2 Cuts, 1¼ to 2 in.	53 00 59 00
Barn Boards, No. 1, 1 x 12	54 00
No. 1, 1 x 10	47 00
No. 1, 1 x 8	46 00
No. 2, 1 x 12	47 00
No. 2, 1 x 10	45 00
No. 2, 1 x 8	44 00
No. 3, 1 x 12	40 00
No. 3, 1 x 10	38 00
No. 3, 1 x 8	37 00
Canadian spruce boards	27 00 40 00
Spruce, 12 in. dimension	39 00
Spruce, 10 in. dimension	38 00
Spruce, 9 in.	37 00
Spruce, 8 in. under dimen.	36 00
10 and 12 in. random lengths, 8 ft. and up	36 00
2 x 8, 2 x 4, 2 x 5, 2 x 6, 2 x 7	31 00
3 x 4 and 4 x 4 in.	32 00
2 x 8 in.	34 00
All other random lengths, 7-in. and under, 8 ft. and up	30 00 31 00
5-inch and up merchantable boards, 8 ft. and up, p 1s..	28 00 30 00
1 x 2	27 50
1 x 3	28 00
1½-in. spruce laths	5 25 5 50
1½ in. spruce laths	5 00

New Brunswick Cedar Shingles

Extras	4 75	5 00
Clears	4 40	4 65
Second clears	2 80	3 25
Clear whites	2 00	2 75
Extra 1s (Clear whites in)	1 75	2 25
Extra 1s (Clear whites out)	1 65	1 90
Red Cedar Extras, 16-in. 5 butts to 2-in.	4 75	5 00
Red Cedar Eurekas, 18-inch 5 butts to 2 ins		4 75
Red Cedar Perfections, 5 butts to 2¼		5 22
Washington 16-in. 5 butts to 2-in. extra red cedar		3 76

Blanchard Lumber Co.

H. W. BLANCHARD, Treas.

WHOLESALE LUMBER

Eastern Spruce

Hemlock

Pine

Shingles

and

Lath

Owing to constantly increasing sales we are anxious to establish new connections with Eastern Spruce mills, for shipment by car to Boston and New York markets, or by canal boat from Quebec to New York.

We also desire more connections with manufacturers of British Columbia red cedar shingles and cedar siding.

We will buy outright or sell on a 5 per cent. commission.

Douglas Fir

Red Cedar Shingles

Hard Pine

Maple Floors

Shipment by car, canal boat or cargo.

We manufacture Spruce at our own Mills at Portage, Maine, U. S. A., and therefore we know what big prices mean to the manufacturer

11 Broadway, NEW YORK, N.Y., U. S. A.

126 State Street, BOSTON, MASS.

"ASBESTOL" the Mitten with a Reputation

Isn't it strange what a wonderful prestige a reputation will create?

Those of you who are not acquainted with the country-wide reputation of "ASBESTOL" have only to look about and observe the trade mark on the mittens of your fellow workers.

Why not buy a pair of "ASBESTOL" and learn the reason of this so called reputation?

ASBESTOL REG. IN U.S. PAT. OFF

EISENDRATH'S CELEBRATED HORSE HIDE

Look Like Silk
Feel Like Kid
Wear Like Iron

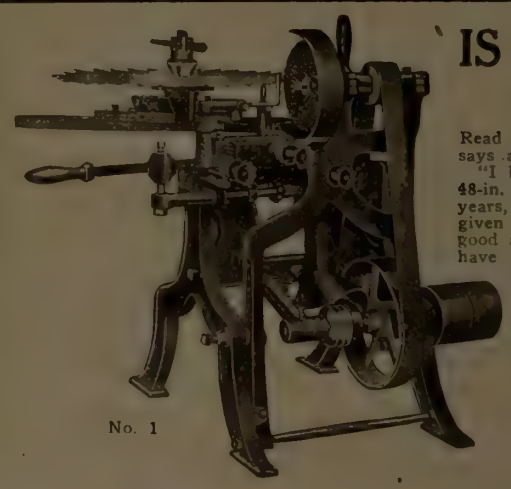
GLOVES and MITTENS

If your dealer does not sell "ASBESTOL" —ask him to get them.

DEALERS—Your nearest jobber has "ASBESTOL" and can supply you on short notice.

EISENDRATH GLOVE COMPANY

2001 Elston Ave. - - - CHICAGO



No. 1

IS IT WORTH A TRIAL?

Read what Du Bois of Cobden, Ills., says about this machine:

"I have been operating one of your 48-in. Circular Saw Sharpeners six years, and in that time no part has given out.. This machine works as good as the day it came, and I don't have to touch a saw with a file to make it cut 210 feet per minute with a 16-in. saw in 2-in. lumber."

It will do the same for you—why not give it a trial. We ship them to responsible concerns on thirty days trail.

We also make a full line of AUTOMATIC KNIFE GRINDERS and BAND SAW SHARPENERS

SAMUEL C. ROGERS & CO., 18 Lock Street. BUFFALO, N. Y.

Lower Oil Bills

Mix a little Flota Mica in your oils or greases and you will be surprised how much it will improve the lubricating qualities. Virtually the equivalent of a 90c. oil can be produced from a combination of a cheap oil and some Flota Mica. The largest power plants are using Flota Mica and getting wonderful results.

Send for particulars. Fill out the coupon.

Flota Mica Sales Co.

214 Moffat Bldg.

DETROIT - MICH.

Flota Mica

Anti-Friction Lubricant

Flota Mica Sales Company, 214 Moffat Bldg., Detroit, Mich.
Please send me particulars on Flota Mica.
Name .....
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POWER-SPEED-SERVICE WITH DUNLOP "GIBRALTAR" BELTING

YOU CANNOT BEAT "GIBRALTAR"

Now, more than ever, because of the great scarcity of leather, rubber belting is coming to its own.

For this reason—and also because **"Gibraltar"** will give you a hundred times more satisfaction than either Leather or Balata—we urge you to procure a sample of **"Gibraltar Redspecial"** from one of our branches.

They are located in Victoria, Vancouver, Edmonton, Calgary, Saskatoon, Regina, Winnipeg, London, Hamilton, Toronto, Ottawa, Montreal, St. John, Halifax.

When you procure the sample, cut it open, try to pull the plies apart, and note the weight of duck, strength of friction. Then compare **"Gibraltar Redspecial"** with any other make of belting.

"Gibraltar" is constructed of the very best duck. The rubber friction is of the highest quality and has adhesive powers second to none. Separation of plies and stretching are unknown in **"Gibraltar"** Belting. These are some of the reasons why the sales of **"Gibraltar"** have reached their present great proportions.

For Drives, Rotaries, Edgers, Lath and Shingle Machines, or any kind of Transmission work, there is nothing better than Dunlop **"Gibraltar Redspecial"** Belting.

Why not get on the right "Belt Line?"

Dunlop Tire & Rubber Goods Co., Limited

D. 25

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SEAL OF QUALITY
"GIBRALTAR"

CANADA LUMBERMAN BUYERS' DIRECTORY

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Wistar, Underhill & Nixon

DRY KILNS
Sheldons, Limited

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Long Lumber Company
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Terry & Gordon

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B. C. Lumber Commissioner
Blanchard Lumber Company
British American Mills & Timber Co.
Canadian Western Lumber Company
Chicago Lumber & Coal Co.
General Mercantile Company
Heeney, Percy E.
Long Lumber Company
Mason, Gordon & Company
Muir & Kirkpatrick
Shawnigan Lake Lumber Co. Ltd.
Terry & Gordon
Timberland Lumber Company
Timms, Phillips & Company
Vancouver Lumber Company

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Sheldons Limited
Toronto Blower Company

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Jeffrey Manufacturing Company
Waterous Engine Works Company

EMERY GRINDERS
Carborundum Company
Waterous Engine Works Company

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Hamilton Company, William
Jenckes Machine Company
Waterous Engine Works Company

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Toronto Blower Company

EXHAUST SYSTEMS
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Disston & Sons, Henry
Nicholson File Company
Simonds Canada Saw Company

FIRE BRICK
Elk Fire Brick Company of Canada
Waterous Engine Works Co.

FIRE FIGHTING APPARATUS
Waterous Engine Works Company

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Lauderburn, D. E.

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Eisendrath Glove Company

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Can. Mathews Gravity Carrier Co.

HARNESS
Lamontagne Limited

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Bathurst Lumber Company
Cameron & Company
Chicago Lumber & Coal Co.
Fassett Lumber Company
Fraser Limited
Gillespie, James
Heeney, Percy E.
Long Lumber Company
McLennan Lumber Company
Moores, Jr., E. J.
Muir & Kirkpatrick
Murray & Gregory
Spencer, C. A.
Stearns Salt & Lumber Company
Summers, James R.
Terry & Gordon
Webster & Bro., James

HARDWOOD FLOORING
Long Lumber Company
Wilson Bros.

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Blanchard Lumber Company
Bourgouin, H.
Graves, Bigwood & Company
Haeberle Lumber Company
Hart & McDonagh
Laferte, J. A.
Long Lumber Company
Muir & Kirkpatrick
McGibbon Lumber Company
Mason, Gordon & Company
Spears & Lauder
Spencer, C. A.
Terry & Gordon
The Long Lumber Company

HOSE
Dunlop Tire & Rubber Co.
Gutta Percha & Rubber Company

HARDWOOD VENEER DOORS
Wilson Bros.

INTERIOR FINISH
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Arkansas Lumber Company
Arkansas Soft Pine Bureau
Canadian Western Lumber Company
Chicago Lumber & Coal Co.
Cotton Belt Lumber Company
Crossett Lumber Company
Eagle Lumber Company
Edgar Lumber Company
Freeman-Smith Lumber Company
Fordyce Lumber Company
Gates Lumber Company
Muir & Kirkpatrick
Southern Lumber Company
Stout Lumber Company
Terry & Gordon
Wilson Bros.
Wisconsin & Arkansas Lumber Co.
Canadian Allis-Chalmers

KNIVES
Disston & Sons, Henry
Peter Hay Knife Company
Simonds Canada Saw Company
Smith Company, R. H.
Waterous Engine Works Company

LATH
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Arkansas Lumber Company
Arkansas Soft Pine Bureau
Austin & Nicholsin
Beck Mfg. Company, C.
Chicago Lumber & Coal Co.
Cotton Belt Lumber Company
Crossett Lumber Company
Eagle Lumber Company
Edgar Lumber Company
Fraser Limited
Fraser-Bryson Lumber Company
Freeman-Smith Lumber Company
Fordyce Lumber Company
Gates Lumber Company
Graves, Bigwood & Company
Harris Tie & Timber Company
Long Lumber Company
McGibbon Lumber Company
McLennan Lumber Company
Muir & Kirkpatrick
Murray & Gregory
New Ontario Colonization Company
River Ouelle Pulp & Paper Co.
Southern Lumber Company
Stone, Fred J.
Stout Lumber Company
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Terry & Gordon
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LOCOMOTIVES
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LOCOMOTIVE CRANES
Canadian Link-Belt Company, Ltd.

LOGGING CHAINS
McKay Company, James

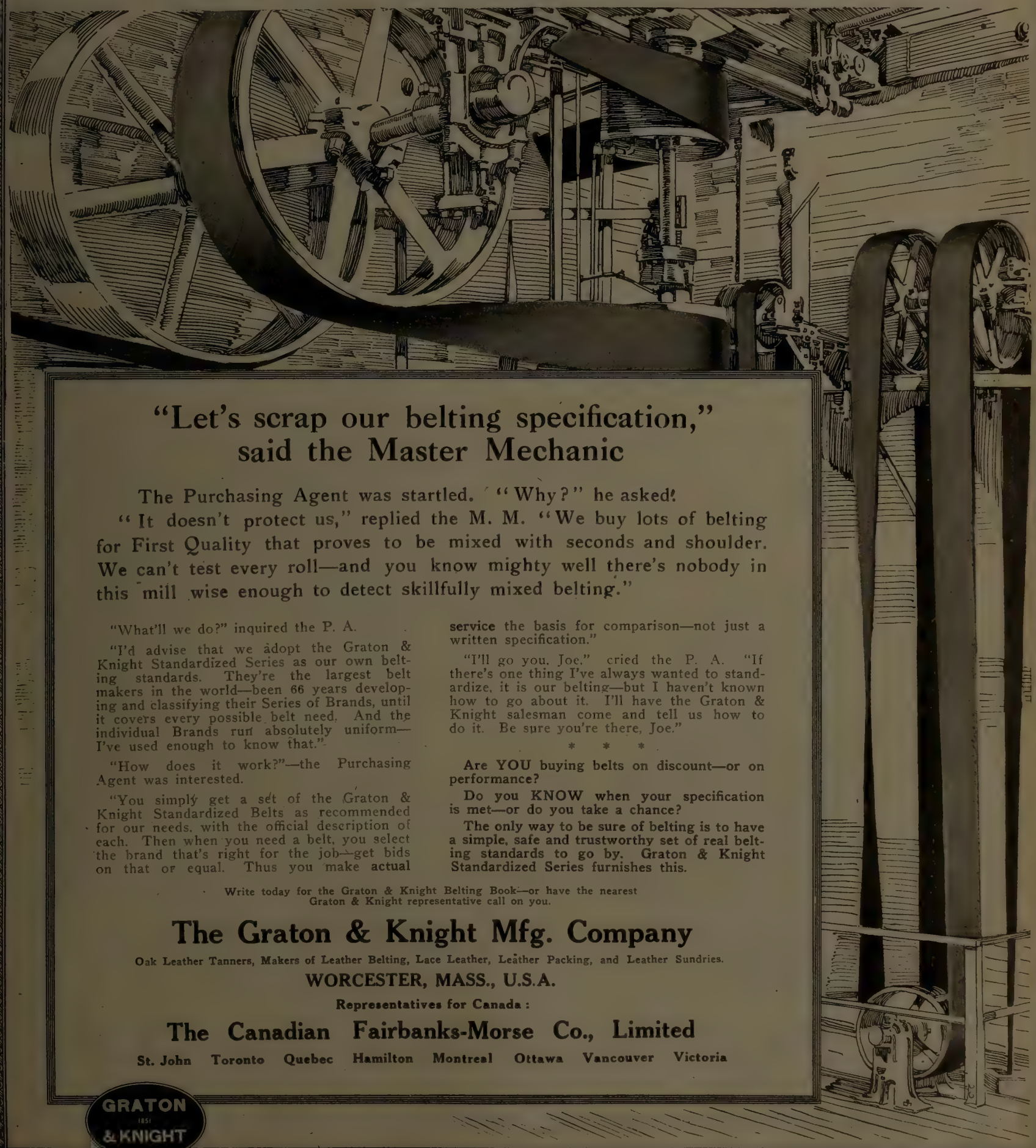
LOGGING ENGINES
Dunbar Engine & Foundry Co.
Jenckes Machine Company

(Continued on page 62)

GRATON & KNIGHT

Standardized Series LEATHER BELTING

Tanned by us for belting use



"Let's scrap our belting specification," said the Master Mechanic

The Purchasing Agent was startled. "Why?" he asked.

"It doesn't protect us," replied the M. M. "We buy lots of belting for First Quality that proves to be mixed with seconds and shoulder. We can't test every roll—and you know mighty well there's nobody in this mill wise enough to detect skillfully mixed belting."

"What'll we do?" inquired the P. A.

"I'd advise that we adopt the Graton & Knight Standardized Series as our own belting standards. They're the largest belt makers in the world—been 66 years developing and classifying their Series of Brands, until it covers every possible belt need. And the individual Brands run absolutely uniform—I've used enough to know that."

"How does it work?"—the Purchasing Agent was interested.

"You simply get a set of the Graton & Knight Standardized Belts as recommended for our needs, with the official description of each. Then when you need a belt, you select the brand that's right for the job—get bids on that or equal. Thus you make actual service the basis for comparison—not just a written specification."

"I'll go you, Joe," cried the P. A. "If there's one thing I've always wanted to standardize, it is our belting—but I haven't known how to go about it. I'll have the Graton & Knight salesman come and tell us how to do it. Be sure you're there, Joe."

* * *

Are YOU buying belts on discount—or on performance?

Do you KNOW when your specification is met—or do you take a chance?

The only way to be sure of belting is to have a simple, safe and trustworthy set of real belting standards to go by. Graton & Knight Standardized Series furnishes this.

Write today for the Graton & Knight Belting Book—or have the nearest Graton & Knight representative call on you.

The Graton & Knight Mfg. Company

Oak Leather Tanners, Makers of Leather Belting, Lace Leather, Leather Packing, and Leather Sundries.

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Cleveland-Sarnia Sawmills Company
Donogh & Company, John
Eagle Lumber Company
Fraser-Bryson Lumber Company
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Gillies Bros. Limited.
Gordon & Company, Geo.
Graves, Bigwood Company
Harris Tie & Timber Company
Hart & McDonagh
Hettler Lumber Co., Herman H.
Long Lumber Company
Mason, Gordon & Company
McLennan Lumber Company
Montreal Lumber Company
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Oliver Lumber Co.
Parry Sound Lumber Co.
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Summers, James R.
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Hamilton Company, William
Jeffrey Manufacturing Company
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Sessenwein Bros.

RESAWS
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Mershon & Company, W. B.
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Payette & Company, P.
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Waterous Engine Works Company
Yates Machine Co., P. B.

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Campbell-MacLaurin Lumber Co.
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Fraser Limited
General Mercantile Company
Gillespie, James
Harris Tie & Timber Company
Heeney, Percy E.
Long Lumber Company
McGibbon Lumber Company
McLennan Lumber Company
Terry & Gordon.
Timms, Phillips & Company
Vancouver Lumber Company

(Continued on page 64)

The Babbitt Metal that's at the Front in Efficiency and Economy

HARRIS HEAVY PRESSURE

"The Babbitt Metal Without a Fault," is guaranteed to give EXCELLENT SERVICE. It will not crack or squeeze out. It will run cool at any speed. It is copper coated and copper hardened. It is best for all general machinery bearings. Order a box from our nearest factory.

It is Made in Canada. What We Make We Guarantee.

We Manufacture All Grades of Babbitt Metals.

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A Profitable Industry For Lumbermen

There is a handsome return on any investment in the chemical industry—particularly in the manufacture of those chemicals which we heretofore imported from Germany.

The industry is particularly attractive to lumbermen as many valuable chemicals are obtainable from wood waste by our complete wood distillation and chemical plant.

Guaranteed Results

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GLASGOW, SCOTLAND
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For Refuse Burners, Boiler Settings, Kilns, Dutch Ovens, Etc.

We make a special brand of Fire Brick for each separate condition. Our many years in this field proves our ability to market a product that will support our good reputation. You want to get the most out of your business. Pay careful attention to this vital part of the plant. Write us the nature of your requirements. We will go into the matter carefully with you

"Elkco Special," "Elk Steel," "St. Marys," "Keystone" and "Rotex"

and advise on the best methods of construction. At any rate, send for our catalogue. It will be of great interest when you are considering the use of Fire Brick in any form. Many of the most important industries in Canada are using one or more of our brands of Fire Brick. We would like to have you know what they think of our product.

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HIGH GRADE FIRE BRICK and CLAY
Sun Life Bldg., Hamilton, Canada
Representatives for Maritime Provinces:
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ROCHESTER, N. Y.

Manufacturers of—

Nailing Machines,

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Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
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By the

Carbic System

This Carbic Light will burn for twelve hours steadily, giving 2,000 candle power without refilling with Carbic Cakes—the handy new system of compressing raw Carbide. For Logging, Bush Work, Camp Lighting and Saw Mill there is no artificial light to equal "Carbic." We have sold

Modern THE Carbic LIGHT **Lighting**

hundreds to Lumber Camps, Military Camps, Corporations, etc., and every one gives perfect satisfaction. Expense of operation is small. Light can be regulated with our patented burner. Safe to operate and handle. Write for interesting catalogue and prices to the lumber trade.

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Arkansas Lumber Company
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Crossett Lumber Company
Eagle Lumber Company
Edgar Lumber Company
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Fordyce Lumber Company
Gates Lumber Company
Hobart & Company
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The most advanced improvements in Saw manufacture have placed us far ahead in the manufacture of Saws for all uses.

Our Band and Circular Saws are worthy examples. They cut more timber—do it with less power and require less repair to be kept in perfect condition.

Economy in mill operation has proved their value. Put them through competitive tests with other Saws.

The Sterling quality of

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will overcome your difficulties.

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PETERBOROUGH, ONT.

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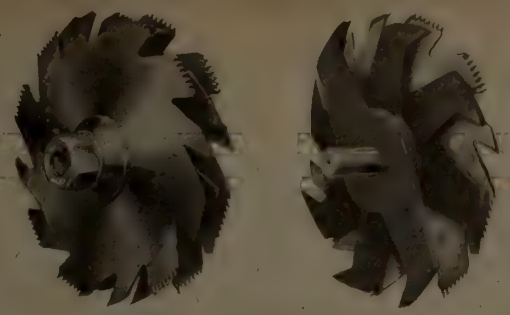

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Fits Any Saw Mandrel

A Huther Bros. Dado Head consists of two outside cutters and enough inside cutters to make the required cut. This Head will cut perfect grooves, with or across grain, any width. It is an easy Head to keep in perfect condition, has a simple quick adjustment, and may be enlarged any time after purchase. Sent on approval and if not satisfactory return at our expense.

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Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

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CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

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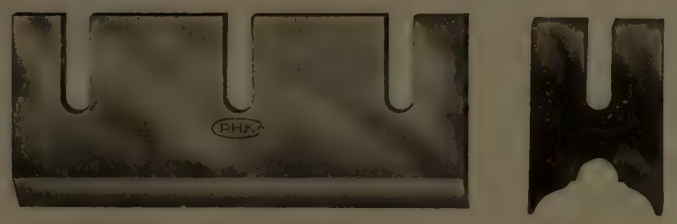


MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

THE E. LONG MANUFACTURING CO. SAW-MILL MACHINERY ORILLIA, CANADA

Iron Saw Frame

For a simple, substantial machine that will stand up under long service and a heavy lumber production, we have no hesitation in commending the machine herein described and illustrated, as having made good under the severe tests of actual service.

Note particularly the simplicity of design, the accessibility of every part, and the full adjustment provided for.

The frame, or bed, of the machine is made in a single casting of the hollow box section, heavily ribbed and absolutely rigid. This facilitates the installation of the machine and insures a proper relation of parts being maintained. All the parts of the machine rest on planed surfaces and are bolted through the top of the bed casting. To get at these bolts, large hand holes are left on the inside of the machine; one of which can be seen above.

Ask us for catalogues and prices.

The E. Long Manufacturing Company, Limited

Orillia - Ontario

An Edger for 6" Cants

You can put a 6-in. cant through this edger and know that it will come through edged to a hair. Edger carries 22-in. saws, 6-in. saw collars, leaving 7-in. clear saw blade, more than enough margin for 6-in. stock

Mandrel is 3⅞-in. in diameter, the three bearings that support it are each almost 10-in. long—the rest of the machine is built in proportion. That's why Waterous New Champion Edgers can be crowded to the limit and will turn out full capacity, day after day, without straining.

Notice the feed rolls, two before and two behind the saws. They are machine fluted to give a firm, secure grip on the timber that holds it fast, but will not mar it in any way.

We build up-to-date Machinery for Sawmills of every capacity—circular or band

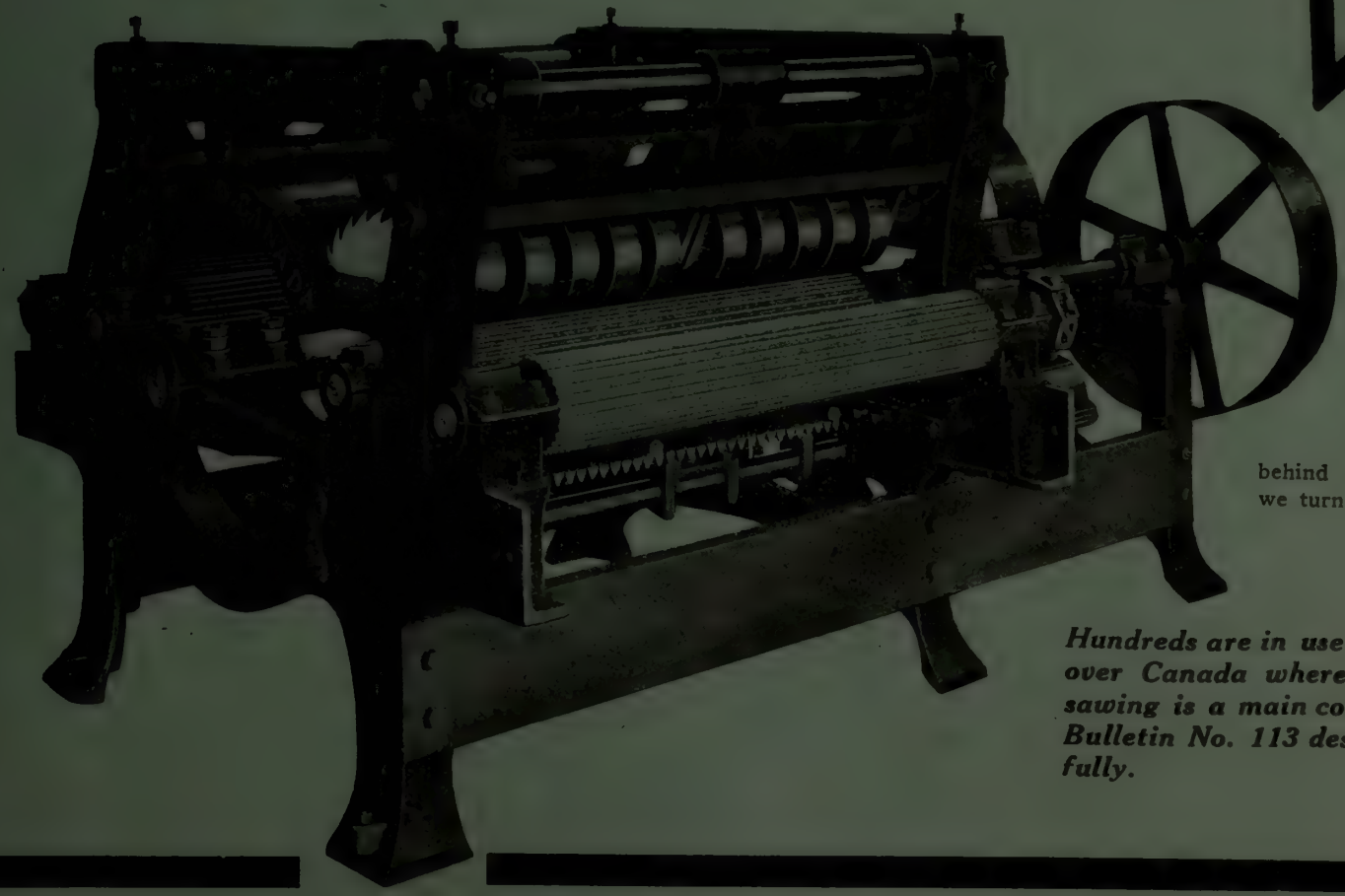
Catalogues on request

The press rolls are divided, too, making both sides of the machine independent of each other. It's a worth while feature, decidedly.

WATEROUS NEW CHAMPION EDGERS

are built with 40", 48", 56", 60" and 72" opening. They carry as many as four movable and two stationary saws without difficulty.

These edgers cut true and to dimension at all times. The guides are rigid and cannot shift in the cut. They are crowded to correct position and held immovably in place by a steel setting gauge that drops upon them. *No other edger has this feature.*



Waterous New Champion Edgers are fast and accurate cutting, easily operated, and perfectly safe. We stand behind every machine we turn out.

Hundreds are in use in mills all over Canada where quality of sawing is a main consideration. Bulletin No. 113 describes them fully.

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worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station;** packed in 30 lb. and 60 lb. boxes.

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Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

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"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

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The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
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Dart Union Pipe Couplings

Bronze to Bronze at the joint—

No Deterioration

Heavy Iron Parts will not stretch or pull apart.

NO MAINTENANCE COST

Your Jobber sells them

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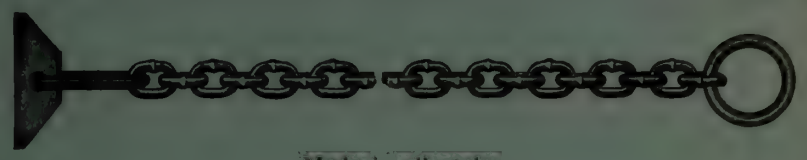


Made in all styles

Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

UNIFORMITY

AMACOL
TENAXAS
TIN TOUGHENED
ATLAS
MASCOT
W.E.W. BABBIT

USED THE WORLD OVER

Atlas Babbits

MADE IN CANADA

SATISFACTION

A BRAND TO MEET ANY OF YOUR REQUIREMENTS AND SATISFY YOU

ATLAS METAL AND ALLOYS COMPANY OF CANADA LIMITED
MONTREAL

SALES AGENTS
THE CANADIAN B.K. MORTON CO. LIMITED
MONTREAL 49 COMMON STREET | TORONTO 86 RICHMOND ST. E.

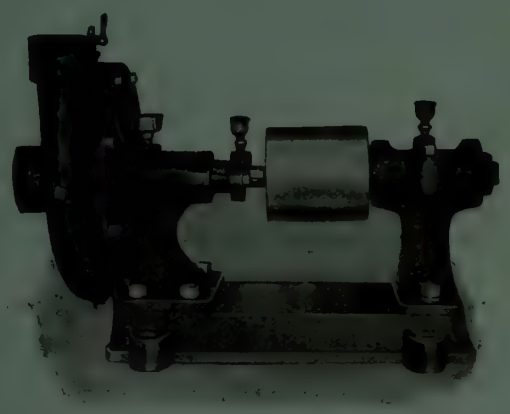
GENUINE "TURBROS"

Balata Belting

Waterproof and Stretchless.
The best belt for sawmills.

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)



A Special Pump for Your Special Needs

Let us solve your problems

The Smart-Turner Machine Co., Ltd.
HAMILTON, CAN.

MORRISON Jet Pump or Water Lifter operates by water pressure.

J. M. T. Steam Specialties

J. M. T. Steam goods have been designed to meet present-day needs. They are made of high-grade materials only, and the workmanship is high class and thoroughly dependable.

Whether you need stop valves, safety valves, ejectors, injectors, or any other steam goods, you can select your requirements from the J. M. T. line with the full assurance that they will give highest efficiency.

Prices, etc., sent on request.

The James Morrison Brass Mfg. Co., Ltd., 93-97 Adelaide Street West TORONTO

Alphabetical Index to Advertisers, Page 54 Classified Directory to Advertisements, Page 56

SURROUND YOUR BUSINESS WITH NEVER-FAIL BELTING

"Strength of Gibraltar," while not our phrase, aptly applies to the rubber belting made by us and sold under the name **"Gibraltar Redspecial."**

⚜ ⚜ ⚜

It would be interesting to us if you, as a user of belting, would, before making your next purchase, get a verdict on **"Gibraltar"** from some of your friends.

⚜ ⚜ ⚜

Ask them if a stronger belt than **"Gibraltar"**—one giving more service with less loss of power—can be obtained anywhere; if any other product will survive heavy loads better; and, if, in withstanding the jerky strains consequent on fluctuation of power, any other belt can show a higher quality of friction in uniting the plies than **"Gibraltar Redspecial."**

⚜ ⚜ ⚜

We have evidence aplenty, in the form of voluntary testimony, which shows that for strength, durability and general service **"Gibraltar Redspecial"** is matchless. In the Biggest Saw Mills, Biggest Pulp and Paper Mills, Biggest Manufacturing Plants, one "driving force" is nearly always in evidence—Dunlop **"Gibraltar"** Belting.

⚜ ⚜ ⚜

For Drives, Rotaries, Edgers, Lath and Shingle Machines, or any kind of Transmission work, there is nothing better than Dunlop **"Gibraltar Redspecial"** Belting.

⚜ ⚜ ⚜

And what Dunlop **"Gibraltar Redspecial"** means to users of Transmission Belting, Dunlop **"Samson"** ensures to users of Conveyor or Elevator Belting.

NO LOAD TOO HEAVY

DUNLOP "GIBRALTAR" BELTING

NO SERVICE TOO EXACTING

D. 26

Dunlop Tire & Rubber Goods Co., Limited

Specials in Dry Stock

Merchantable Spruce

2x4x10/16	50 M ft.
2x5x "	60 M ft.
2x7x "	100 M ft.

Merchantable Hemlock

1x 9x10/16	40 M ft.
1x10x "	100 M ft.
2x10x "	75 M ft.
2x12x "	37 M ft.

5th Quality Spruce

3 x 5 and up x 6/16 150 M ft.

Bartram & Ball Limited

WHOLESALE LUMBER

Drummond Bldg. - Montreal, Que.

British Columbia Forest Products

Having been actively connected with the manufacturing and selling of B.C. Lumber and Timber for ten years, and with connections among the best on the Pacific Coast, we are in a position to place your orders to assure the best of service and quality.

We have the following cars in transit:—

2 cars mouldings, assorted B. C. Fir.
2 cars casing and base B. C. Fir.
5 cars 1 x 4 B. C. Fir Ceiling, Kiln Dried.
3 cars 1 x 3 B. C. Fir Ceiling, Kiln Dried.
1 car 1 x 3 B. C. Fir Edge Grain Flooring, Kiln Dried.
2 cars 1 x 3 B. C. Fir Mixed Flooring and Ceiling.
2 cars 18-in. Shingles.
2 cars 5/8 x 4 B. C. Fir Ceiling.
1 car No. 3 Ceiling, B. C. Fir..
10 cars timbers, all sizes and lengths.

WE MAKE A SPECIALTY OF HEAVY TIMBERS, SHIP DECKING AND PLANKING

KNOX BROTHERS, Drummond Building, 511 St. Catherine St., Montreal, Que.

VANCOUVER OFFICE: PACIFIC BLDG., VANCOUVER, B.C.

SPECIALISTS IN BRITISH COLUMBIA FOREST PRODUCTS

Sole representatives of The Victoria Lumber & Manufacturing Company, Ltd., in Eastern Ontario, Quebec and Maritime Provinces.

George Gordon & Co.

Limited

Cache Bay - Ont.

Manufacturers of

RED and WHITE PINE

PLANING MILL **DRY KILN**

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

Write for Prices

WANT TO MOVE

3 Cars 1 x 4 Merchantable Spruce,
D 2 S. and C. M.

100,000 ft. 2 x 4 and up No. 1 Red
and Jack Pine Mill Culls

50,000 ft. 3 x 6---10 No. 1 Com.
Georgia Pine

100,000 ft. 1 x 10 and 12 in. No. 2
White Pine Culls

The Long Lumber Company

Hamilton, Canada

Vancouver Lumber Co.

Manufacturers LIMITED

B. C. FIR and CEDAR LUMBER

View of our cedar mill, Roche Point, B. C.

Two Large Modern Mills at Your Service.

Send enquiries to our Eastern Sales Office—

701 Excelsior Life Building,
TORONTO, ONT.

Representatives { CHAS. PLANT
C. J. BROOKS

Our No. 2 Mill and Yards on the Nepisiguit River, showing steamer loading for France

The First Big Lumber Contract

was placed when Noah undertook to build the Ark

The contract called for over 3,000,000 ft. of Lumber

It took Noah & Sons 120 years to cut, haul and build their material.

A modern sawmill would have saved them at least 118 years on the job.

Our three mills embody all the labor-saving, good-job-ensuring devices. Our up-to-the-minute plants will save you time and money.

Bathurst Lumber Co., Limited, BATHURST, N. B.

Write for Monthly Stock List A-1

BATHURST

RAIL AND WATER SHIPMENT

Ten Band Mills to Serve You

Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

Fraser Limited, Fredericton, N. B.

ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

Watson & Todd Limited
OTTAWA

RED PINE WHITE PINE
SPRUCE

SEND US YOUR ENQUIRIES

The
Harris Tie & Timber Co.
Ottawa - Canada
Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

ONTARIO
Canada's Banner Province

Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

Pine production,	905,442,000 ft. B.M.
Pulpwood,	240,282 cords.
Railway Ties,	5,704,459

Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

Ontario's vast resources offer unsurpassed opportunities to the lumberman.
For maps and full information regarding Ontario, apply to

HON. G. HOWARD FERGUSON,
Minister of Lands, Forests and Mines.

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

Head Office and Mills at:
St. Pacome, Que., Canada
On I. C. Ry. 75 Miles East of Quebec City

Also Mills at:
Crown Lake, Powerville Riv. Manie
On Nat. Transcontinental Ry.

Fraser Bryson Lumber Co., Ltd.

Office, Castle Building 53 Queen St. Ottawa, Can.

Wholesale Lumber Dealers and Selling Agents for

Fraser & Co.

Mills at

DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1″, 2″ and 3″ to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson

Chapleau, Ontario

Long Leaf Yellow Pine, Louisiana Red Cypress

Annual Capacity 350,000,000 Feet Yellow Pine
50,000,000 Feet Red Cypress

Nature's best in forest products

LET US QUOTE YOU PRICES

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

CHICAGO LUMBER & COAL COMPANY

Manufacturers

General Offices: EAST ST. LOUIS, ILLS.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

BASS WOOD

We offer for immediate shipment—
1″ and 1½″ Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—
1 x 8½″ 1 x 9″ and wider
1 x 6 and 7″ 1½″ to 4″

SPRUCE BASSWOOD
ASH HEMLOCK and PINE

HART & McDONAGH

513 Continental Life Bldg.
Phone Main 2262

TORONTO

FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
1 Wood Machine for 22-in. wood.
1 Edger for ripping dry lumber, installed.
1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

The Parry Sound Lumber Co.

Limited

26 Ernest Ave.

Toronto, Canada

Mill Yard.

Spruce, Tamarac, Whitewood and Poplar Lumber

SPRUCE AND WHITEWOOD LATH

Planing Mill in connection with Saw Mill

ROSSED SPRUCE PULPWOOD

Full supply of Seasoned Lumber always on hand.

RICH CLAY LOAM LANDS FOR SALE—Townships of Haggart and Kendry. District of Temiskaming. Excellent opportunities for the settler. Write for particulars.

New Ontario Colonization Company, Limited

Sales Office, BUFFALO, N.Y.

Mills:—Jacksonboro, Ont. Located on Transcontinental R.R., 32 miles west of Cochrane.

Wilfrid H. Pauzé

LUMBER MERCHANT—SASH and DOORS

The

Largest Eastern Warehouse of British Columbia Products

I can supply at short notice mixed carloads of

Fir Doors, Columns, Mouldings, Red Cedar Clapboards and Shingles, Fir V-Joint Sheeting, Flooring

BEAVER BOARD DISTRIBUTOR

1822 Cote des Neiges - Montreal

Vancouver Branch
625 Birks Bldg.
F. W. Gordon, Mgr.

Terry & Gordon

Head Office
704 Confederation Life Bldg., TORONTO, ONT.

Montreal, P.Q., Branch
23 La Patrie Bldg.
Leon Gagne, Jr., Mgr.

Western Soft Pine

For Quick Shipment

1 x 8" & up—C & Better
2 x 6" & up—C & Better

For June Shipment.
All thicknesses in shop.

We are Ontario Representatives of
The British Columbia Mills Timber & Trading Company
VANCOUVER, B. C.

We specialize in "QUALITY BRAND" Douglas Fir

WESTERN FIR DOORS
We represent in Ontario and Lower Canada
The Tacoma Fir Door Company Tacoma, Wash.

Douglas Fir

Timbers
Flooring
Ceiling
Trim
Mouldings
Doors

McLennan's Lath Mill and Bolter

Utilize your unsaleable lumber with a lath mill.

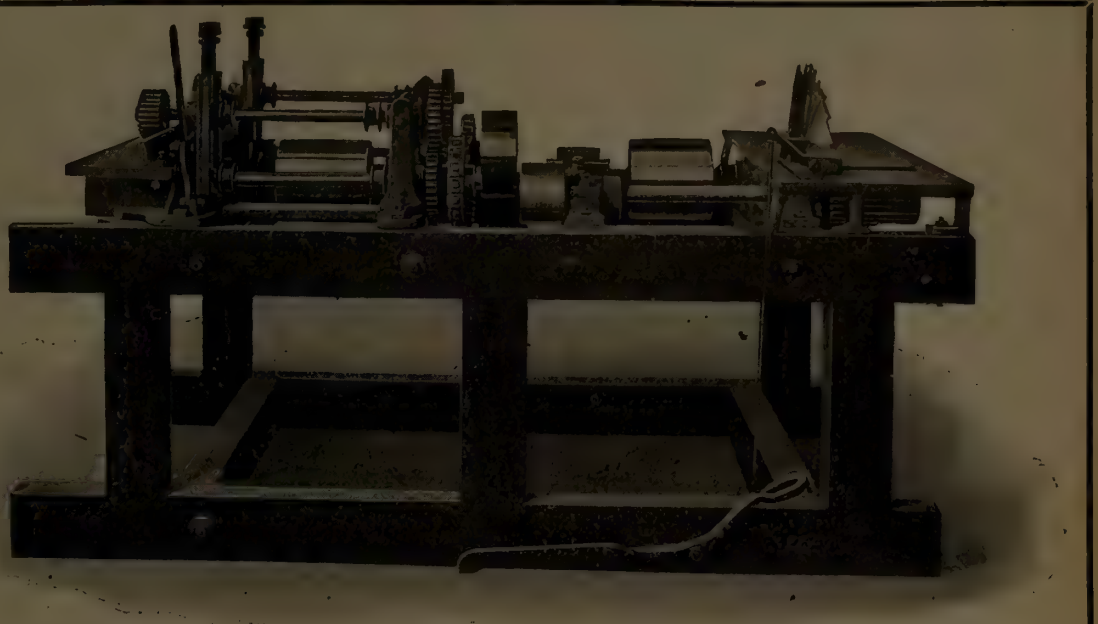
This lath mill and bolter is designed along simple lines with bolted wooden frame, making it inexpensive and substantial.

Capacity 45,000.

Specifications: Lath machine pulley 7 inches diameter x 9 inches face.

Floor space 7 feet 6 inches x 3 feet 6 inches.

We make gang edgers. shingle machines, sleeper machines and barkers, etc.



McLennan Foundry & Machine Works

CAMPBELLTON, N.B. Limited

F. N. Waldie, President. R. S. Waldie, Vice-President. W. E. Harper, Secretary.

The Victoria Harbor Lumber Co., Ltd.

Manufacturers of

Lumber, Lath and Shingles

Mills at Victoria Harbor, Ont.

HEAD OFFICE.
12-14 Wellington Street East, TORONTO, ONT.

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

James P. Grant — John K. Campbell

Grant & Campbell

Manufacturers of

SPRUCE, HEMLOCK TIMBERS AND PILING AND LATH

Prices promptly given on all enquiries.

New Glasgow, N. S.

HARDWOOD

Spruce, Pine, Hemlock,

Lath and Shingles

Crating Lumber a Specialty

JAMES R. SUMMERS

Wholesale Lumber Merchant,

95 King St. East — TORONTO

Lath Wanted

We are Buyers of

ALL GRADES

WHITE PINE, SPRUCE and HEMLOCK LATH

Will contract for entire output and pay spot cash

Send full particulars as to grade, quantity and prices

FRED. J. STONE

DETROIT - - - MICH

Reference Bradstreets

DR. BELL'S

Veterinary Wonder Remedies

10,000 one dollar ($1.00) bottles Free to horsemen who give the Wonder a fair trial. Guaranteed for Colic, Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 25c for Mailing Package, etc. Agents wanted. Write your address plainly. DR. BELL, V.S., Kingston, Ont.

BUNDLING WIRE

For Hardwood Flooring

Tie it with wire. The contractors like it because the bundles never break in handling. Write for quotations.

LAIDLAW BALE-TIE CO., Ltd.

HAMILTON, ONT.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

LUMBER

When in the market for

White or Red Pine

or for

Ontario Hardwoods

Let Us Quote You

SPECIAL !

200 M' Good Cedar Squares

8 x 8—10/16

8 x 10— "

10 x 10— "

10 x 12— "

We are ready to contract for Output of Mills in any Ontario Soft or Hardwoods. Highest cash prices paid, and would advance money for operations.

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

705 Excelsior Life Building

Toronto

FOR SALE

75,000 ft. 1 in., 1¼ in., and 4 in. Birch, log run, mill culls out.

Good dry stock, 1915-16 sawing.

750,000 ft. 3 in. Spruce, 1917 sawing.

Prices on application:—

Thos. Harling & Son

406-7 Board of Trade Bldg., Montreal

5-10

WHOLESALE LUMBER

J. A. LAFERTÉ

Room 38-9

55 St. Francois Xavier Street

MONTREAL

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway, Yellow Pine, Hemlock Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties,

Yellow Pine Timber a Specialty.

Interior Trim Mill Work

NIAGARA FALLS, N.Y.

WHOLESALE DEALERS

Eastern and Southern Lumber

We are at all times in the market for dry WHITE PINE, DIMENSION SPRUCE, SPRUCE BOARDS, HEMLOCK BOARDS, LATH and CLAPBOARDS.

Advise us of your Market Prices and Stocks

A. H. Richardson Lumber Co.

176 Federal Street, BOSTON, MASS.

Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion

"SALADA"

Send for samples and prices.

SALADA TEA CO. — TORONTO

SPECIALTIES

Sawed Hemlock

Red Cedar Shingles

White Pine Lath

Bass and Poplar Siding

James Gillespie

Pine and Hardwood

Lumber

Lath and Shingles

North Tonawanda, N.Y.

Efficiency Demands

Exact knowledge of where your lumber is and how much it runs to the acre in every spot. Our Density Plans show it. Operators are enthusiastic about them. Write for a sample.

JAMES W. SEWALL
OLD TOWN, - MAINE

PRESSES

Hydraulic and Screw
for
VENEER
VENEER DRYERS
PULP
Special machinery made to order

WILLIAM R. PERRIN
TORONTO, CANADA Limited

TIMBER ESTIMATES
Appraisal of timber lands, timber maps, logging efficiency reports, planting. Maximum of accuracy in minimum time and at minimum expense.
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Cant & Kemp

52 St. Enoch Square
GLASGOW
Timber Brokers
Cable Address, "Tectona," Glasgow
A1 and A B C Codes used

FARNWORTH & JARDINE

Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS

2 Dale Street, Liverpool, and Seaforth Road, Seaforth, Liverpool, England

WE ARE BUYERS OF
Hardwood Lumber
Handles
Staves Hoops
Headings
James WEBSTER & Bro.
Limited
Bootle, Liverpool, England
London Office
Dashwood House 9 New Broad St. E. C.

"Well Bought is Half Sold"

FOR QUICK SALE

we offer these

"SNAPPY SPECIALS"

2 cars 1 x 4 and up No. 2 common and better ash.
2 cars 1 x 4 and up No. 2 common and better Elm.
1 car 1 x 4 and up No. 3 common elm.
1 car 6/4 x 4 and up No. 1 common and better Elm.
3 cars 1 x 4 and up No. 1 common and better birch.
5 cars 1 x 4 and up No. 2 common birch.
2 cars 3 in. sound birch hearts.
½ car 4 in. sound birch hearts.
1 car 4 x 6 sound birch hearts.
3 cars 8/4 No. 1, 2 and 3 shop white pine.
3 cars 5/8 x 3 and up 6/16 ft. merch. spruce.
3 cars 1 x 3 6/16 ft. spruce crating.
2 cars 1 x 4 and up 6/16 ft. spruce crating.

Send Us Your Inquiries for :
Lath
Shingles
Cedar Posts

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine
Hemlock
Hardwood
LUMBER

712-20 Traders Bank Bldg., Toronto, Ont.
Mills : Byng Inlet, Ont.

Results That Count

It pays to advertise your wants in the "Canada Lumberman" because you get results. Read this letter.

C. B. Janes & Co.
Limited
VENEERS
Orillia, Canada

Canada Lumberman,
Toronto

Gentlemen,

Kindly discontinue our little sale ad., one car lumber.

We got fifteen enquiries for the one car.

Yours truly,

C. B. JANES & CO., LTD.

(signed) C. B. Janes

If an "ad." in our Wanted and For Sale Department will sell lumber for Mr. Janes it will buy or sell for you. What have you to advertise?

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

BRITISH COLUMBIA PRODUCTS

(Wholesale Only)

FIR TIMBER and Finish, CEDAR SHINGLES and Lumber

Sole Selling Agents for **The British Columbia Mills Timber and Trading Co.**, of Vancouver, B.C., for Fir Finish and Flooring for the Province of Quebec and the Maritime Provinces.

Western Fir Doors

Sole Selling Agents for Eastern Canada for WHEELER OSGOOD CO., Tacoma, Wash.—Doors, Turned Stock &c.

Toronto Office: 510 Lumsden Building
Hugh A. Rose, Representative

Vancouver Office: 304 Pacific Building
Herbert C. Gordon, Representative

I HAVE IT

All Grades in White Pine Lath A Specialty

Milling in Connection

E. J. MOORES, Jr.

MIDLAND CANADA

LET'S GET TOGETHER

JOHN DONOGH & CO.

Wholesale Dealers

SPRUCE

1 x 4-5-6-9 Merchantable
Rough or Dressed

DRY STOCK

1205 TRADERS BANK BUILDING, TORONTO

Milne, Hall & Johns Co., Inc.

502-3-4 Gerke Bldg. CINCINNATI, OHIO

Manufacturers of

Hardwood Lumber

OAK WAGON STOCK Our Specialty

750,000 ft. Thick Oak Plank in stock, 2 inch to 5 inch thickness. Quick shipment can be made.

Send us you requirements and we will quote delivered prices.

SAVOIE & CO.

Lumber Dealers Manseau, Que.
On I. C. Ry.

Special

200,000 ft. Spruce and Balsam, 5th quality and better
3 x 3, 2 x 3, 3 x 4

300,000 ft. No. 1 and 2 Culls, 2 x 3, 3 x 3, 2 x 4

One Million No. 1 and 2 Cull Lath, 1¼"

DRESSING IN TRANSIT

Established 1873

GILLIES BROS. Limited

Mills and Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

RED PINE SPRUCE

New York City: Guy E. Robinson, 1123 Broadway

FIR TIMBERS

Fir Flooring, Ceiling and Siding.
Clear Fir Finish, rough and dressed.
B. C. Red Cedar Bevel Siding.

Red Cedar Shingles
LET US QUOTE YOU

TIMMS, PHILLIPS & CO., LTD.
Yorkshire Building, VANCOUVER, B. C.

British America Mills & Timber Co.
LIMITED
Manufacturers — Wholesalers
Pacific Coast Timber Products
OUR SPECIALTIES
FIR TIMBERS "Shamrock" Brand B.C. Red Cedar Shingles & Siding
Write for our price lists
General Offices:
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VANCOUVER, B.C.
Mills at:
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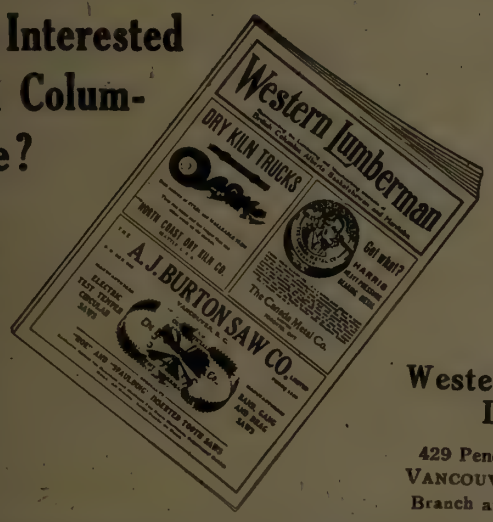
MT. LEHMAN, B.C.

Heavy Fir Dimension
Is Our Particular Specialty
The Heavier it is the Better we like it
We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.
Our grade is positively right, and prices will please
Timberland Lumber Co., Limited
Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.
Mills at Craigs on the B.C.E.R.
Shipments by C. P. R., C. N. R., G. N. R., and N. P. R.

Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

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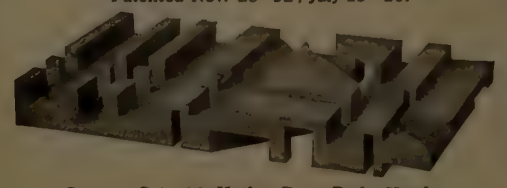

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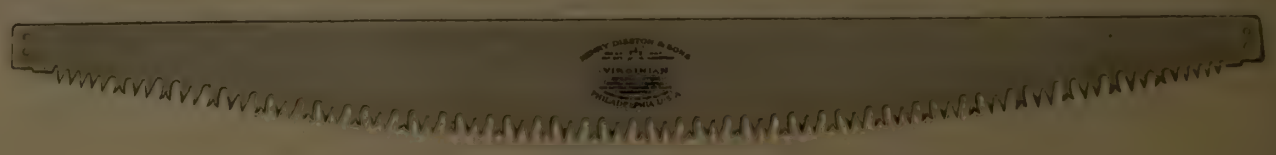

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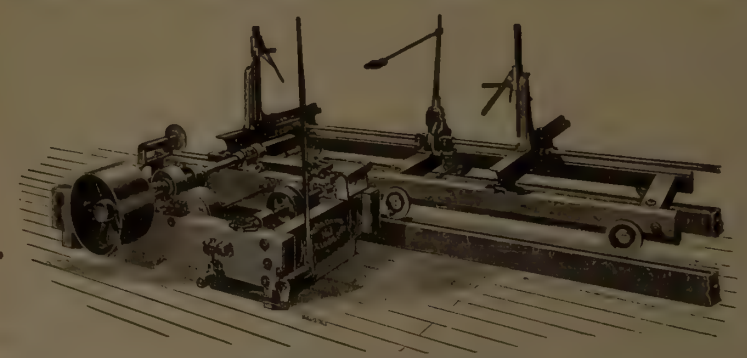

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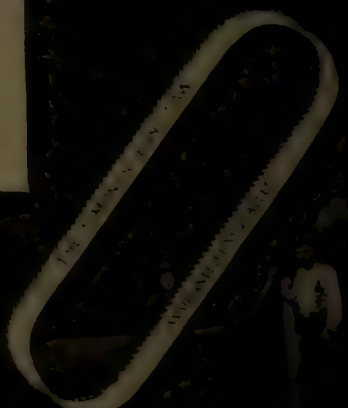

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Canada Lumberman & Wood Worker

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster-General for Canada, for transmission as second-class matter.

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C.P.R. Makes New Switching Charges

A new scheme, recently inaugurated by the C.P.R. in connection with their freight traffic into Toronto, is causing dissatisfaction among lumbermen in connection with deliveries. About the middle of February the C.P.R. adopted the plan of claiming that Toronto, West Toronto, Parkdale, North Toronto, etc., were in future to be considered as separate billing stations, and that all traffic consigned to one of these so-called terminal stations and then ordered to be placed for delivery outside of the restricted district or group of tracks covered by such terminal stations, as arbitrarily defined in the company's switching tariff, must be assessed reshipping or reconsigning switching charges, which range from $2 to $6 per car. This, they claim, is in accordance with C.P.R. tariff E. 2262.

This is a matter of importance to the Toronto trade, and to all who ship lumber into Toronto. It is just one more of those attempts which have been all too frequent to take out of shippers and consignees every possible cent, quite irrespective, in a number of cases, of the ability of the traffic to stand the charge, or of the justification for it. Formerly lumber shipped into Toronto by the C.P.R. could be reconsigned, upon arrival, to the definite tracks upon which delivery was to be made, no charge being assessable for such delivery. The assumption was that this was the most convenient and satisfactory method to the railway company for bringing their traffic to Toronto and distributing it to its various sidings. The new arrangement involves not only an additional expense to the trade, but less efficiency of service and greater possibility of error and dispute. It means that shipments must be definitely routed to the restricted terminal station defined in the company's switching tariff. Otherwise in cases where a shipment is routed simply to "Toronto" there will be a switching charge to the restricted terminal station, and for switching from any one of these terminals to another there will also be a charge, varying from $2 to $6, according to the circumstances.

Not only does this new regulation meet with objection by the trade from the point of view of convenience and cost, but it is definitely claimed by the Canadian Lumbermen's Association, the Canadian Manufacturers' Association, and the Toronto Board of Trade that it is based upon an illegal tariff, and they do not intend to permit the C.P.R. to establish this practice without contesting it vigorously before the Dominion Board of Railway Commissioners. Steps have already been taken in this connection, not only by the lumber interests, but by other Toronto interests, including coal dealers. The railway commissioners have not yet set any definite date for hearing argument upon the question, but it is expected to be considered at an early date.

The question involved in connection with this matter is not quite so simple as the C.P.R. apparently are trying to make out. They would have the shippers and consignees believe that the charge is a definite one for a service rendered, whereas the facts of the case, when it is investigated closely, appear to be quite otherwise. Such service as is rendered is for the convenience of the railway company. A shipper consigning a car merely to "Toronto" under the new arrangement, and requiring delivery to a point in Parkdale, West Toronto, North Toronto, etc., will have to pay the extra switching charges, notwithstanding the fact that the necessary placement of the car is the first and only placement required, and is unquestionably a definite part of the railway company's contract in accepting the car for shipment to Toronto.

The Retail Association Movement

It is only a few years ago—about three years, to be exact—since the retail lumber trade of Toronto consisted of a number of firms, each doing business according to its own methods, and ignoring to a great extent the methods and the interests of all the others. It is a long cry from that day to the present, when a party of the most important retail lumbermen of Toronto have just carried out a visit to Detroit and Windsor, to fraternize with the lumbermen of those cities and to study their ways of co-operating, so as to obtain the best results in the way of improving trade methods. This change has been brought about almost entirely by the good fellowship resulting from getting together upon definite occasions, such, for instance, as weekly luncheons or monthly dinners, and thus obtaining an opportunity to become acquainted personally with one another and to discuss matters of mutual trade interest.

For the past three years the lumbermen of Toronto in general, including the retailers,, have been doing this. After a few months of such meetings the retailers struck out in several directions for themselves. In the first place, they formed a credit bureau, the operation of which we have referred to at considerable length in these columns on former occasions. In the second place, they have found other occasions for holding meetings with one another and discussing their more intimate retail problems. The upshot of the fraternal spirit thus created is a desire not only to know one another better, but to study in a co-operative manner the long list of retail trade problems that have been so troublesome in the past. Beyond any question such problems require handling in this manner, and by co-operation it is possible to improve the efficiency and the pleasure of the retail lumber business to an extent that cannot be approached in any other manner.

The success of the retail trade in Toronto along these lines points clearly to similar success in other parts of Ontario, if the trade will follow the lead they have been given. Already the retail trade in Southwestern Ontario have organized an association, which is now some two years old, and which has grown vigorously, until now it includes every retailer of importance in one of the most important districts of older Ontario; but isolated associations of retailers, important as they are, do not exhaust the possibilities of the situation. Necessarily, such an association can deal only with those questions that concern its own members. When it comes to seeking the solution of problems on a larger scale in which other retailers are interested who are located at outside points such local organizations are of little avail. In these cases what we need, and what we hope to see brought into existence in the near future, is a central organization of retailers for the whole province, consisting of representatives of local associations, meeting at less frequent intervals than the latter, but maintain-

ing a strong executive and staff, equipped to handle vigorously all those larger problems which are beyond the scope of the local associations. That there is a field for such organization is beyond question. The matters which it can take up are numerous and of a varied character. Questions of trade ethics, cost accounting, the proper uses of wood, the advertising of wood, the competition of substitute materials, and a hundred and one other questions, can be effectively handled by a central organization, to say nothing of the important work of preparing plan books, instructing members in connection with figuring upon specifications, etc.

Not only does it seem advisable that the retailers of Ontario should take such steps as these, but it appears to us to be absolutely necessary for them to do so if they are to make the most of their opportunities. The retailer, in a great many cases, has been asleep for many years. He himself is the first to make this admission. He has been permitting the substitute dealer, the unethical dealer, the careless estimator, the unscrupulous credit shark, and everyone else to sow tares in his wheat until much of his good trade has been choked out of existence. If he wishes to place his business on a sound footing he must accept the gospel of co-operation. There is nothing else that we know of which offers such certain and simple relief, at the same time enabling the dealer to become a self-respecting business man, instead of an easy victim, giving all of his time to the worries of a business which will never bring him in any more than a bare living. Now that the Southwestern Ontario retail lumber dealers have made the first step and have the example of the national retail dealers of the United States before them, as well as the example of the Western Retail Lumbermen's Association in the prairie provinces of Canada, the time is opportune for the other districts of Ontario to organize in the same way. In fact, we hope before long to see the retail association movement spreading to the other eastern provinces. The dealers of the city of Quebec have already made a beginning, and we understand that those of Montreal are discussing matters with the same object in view. Instead of nothing whatever in the way of organization, which was the situation a few years ago, we have the seeds of organization fairly well planted to-day, and it needs only a moderate amount of enthusiasm on the part of those who have already shown their interest to develop the situation into one which at an early date will give to the whole trade of Eastern Canada those important advantages which they can obtain in no other way. The Canada Lumberman is keenly interested in seeing the movement prosper, and is ready to back it up in any manner it can.

Railways Asking Largely Increased Freight Rates

An application has been made by the railway companies of Canada for permission to increase their freight rate charges on all commodities, with the exception of coal, to the extent of 15 per cent., at the same time wiping out all fractions except one-half cent, thus making every rate an even cent or half-cent, the new rates to be effective on June 15, 1917. The proposal thus made is so radical and extreme that all shippers of commodities which are to be subjected to the increased rate are facing a serious crisis. The railway companies base their claim for such an extensive increase upon the increased operating costs of the past few years. While costs of operation have undoubtedly advanced in some particulars, we doubt whether it is possible for the railway companies to present convincing statistics to satisfy the Dominion Board of Railway Commissioners that they require so great an increase. Both in the United States and Canada the shipping public have recently adopted a sympathetic attitude towards the railway companies in regard to increased freight rates, feeling that, in common with all other lines of business, the railway companies have had great difficulties and increased costs to contend with, but we have yet to hear of anyone who is ready for a moment to concede that the operating costs of the railways are so much greater to-day than they were before the war as to justify an increase to this extent. In fact, statistics which we have already seen incline us to feel that the railway companies are endeavoring to discount the future to a very substantial extent, and that their receipts and expenditures do not show anything like the adverse difference that is indicated by their proposed increase in traffic charges. Of course, it is not possible in advance to come to a conclusion in regard to this matter. The facts must be brought out before the Dominion Board of Railway Commissioners before anyone can reasonably say what the situation demands, but on the part of the shipping public it is of great importance that all available information should be obtained without delay, so that their side of the case may be laid before the board as convincingly as possible when the matter comes up for determination.

The request of the Canadian railway companies for permission to increase their rates follows along the lines of a similar request made by the railway companies in the United States, which latter request is based very largely upon the decision of the United States courts that the increased wages granted by the courts to railroad employees are legal and must be paid. The railway companies, being thus compelled to pay out enormous increased wages, have promptly determined to pass the burden on to the public in the way of increased freight charges. The United States railways have applied not only for such an increase, but for an increase which will include shipments from points in the United tSates to points in Canada. The Canadian railways also purpose to increase international rates on deliveries from Canada to the United States. In the United States the Interstate Commerce Commission has granted the railway companies a tentative permission to file tariffs increasing rates 15 per cent., effective June 1. Many associations of shippers have taken objection to this proposed increase. The National Wholesale Lumber Dealers' Association are pointing out that there is a great accumulation of orders which were taken on at the present freight rates and cannot be shipped because of transportation embargoes and other difficulties arising out of the lack of shipping capacity on the part of the railways; and, further, that the car supply and movement ought to be taken into consideration at the same time as the proposed rate advance, so as to provide that such advances, if permitted, shall involve the railway companies in an obligation to furnish more adequate service. The Philadelphia Wholesale Lumber Dealers' Association has passed a resolution to much the same effect. They do not oppose a reasonable increase providing railways shall render improved service and provide sufficient equipment before the new rates go into effect, so as to enable shippers of lumber to clear those orders which they have already booked.

Reports from a number of other interests are to the effect that the proposed increase will be supported provided it is considered definitely as a "war measure," to be subjected to revision after the conclusion of peace.

Will Embargo All but Licensed Shipments

St. John agents of English shipping firms have received notification that an embargo will be placed on lumber going from Canada to Great Britain after May 31. Under this edict from the British Government no lumber will be allowed to be shipped during the coming summer to individuals in England unless a special license is obtained from the government. This means that if a New Brunswick or any Canadian firm desires to charter space for shipment of lumber to Great Britain it will first have to communicate with its representatives in England, who will make application for the necessary license.

Although it is felt in some quarters that this may have a serious effect on business during the summer, there are others who believed that, inasmuch as the government is buying and shipping practically all of the lumber in the province there will be no serious handicap for the time being at least, or as long as the government continues to buy the cuts of Canadian lumber merchants.

The reason advanced by shipping and transportation firms for the embargo which was really announced some weeks ago, is that the shipping facilities should be devoted to more essential products for the Mother Country.

Government Business for the West

Lumber Required for Barracks and Ships Likely to Tax Producing Capacity—Car Shortage Compelling Mills to Close Down

A letter received recently from a prominent British Columbia lumber firm by a Montreal wholesaler shows the condition of the market on the Pacific Coast. It is interesting as an indication of how business has grown and of the large number of orders now placed with British Columbia mills. The writer says:

"The volume of business has gradually increased, while the car supply has not. The result is that the mills have become more and more loaded up with orders. The time will come when they will have to stop, and fully 90 per cent. of them have stopped. They say that they want to clean up the business they have on their books before taking on any more orders. It is commonly rumored here, and generally believed, that the governments intend to build something like 1,000 ships. It is estimated that this will require 900,000,000 feet of lumber. It is also commonly rumored, and also believed, that the United States Government will requisition some 500,000,000 feet of lumber for barracks. As they are now assembling an army that is supposed to be of a size of from 500,000 to 1,000,000 men, it will be necessary to build comfortable quarters for them, and if the government start in doing this, as without a doubt they will, they will clean up all the available stock here on the Coast. We understand that the barracks they expect to build in Tacoma will require 87,000,000 feet alone. Under such conditions we have found it necessary to withdraw from the market.

"The shingle market the last few days is showing a little weakening. This is due to some of the railroads getting a few cars. However, the car situation is tightening up again this week, and we would not be surprised to see the shingle market hold where it is to-day, or advance again in a short time. The railway officials report that the car situation is much tighter, and that they will probably not have a supply of cars like they had last week.

"The government has called on one of the transcontinental lines to furnish 100 box cars per day until they have furnished six thousand. The grain will be moving in the next thirty or sixty days, and this will have to be moved, and moved quickly."

United States Lumbermen Helping War Measures

The lumber industry of the United States is rapidly mobilizing for war, in furtherance of the pledge of loyalty made by the national association at its April meeting.

The Southern Pine Association has sent a committee to Washington to arrange for sale of lumber to the government for wooden ships, barracks, etc.

The Northern Hemlock and Hardwood Manufacturers' Association of Wisconsin and Michigan has decided to provide the government with its lumber without profit, and has named a committee to prepare a schedule of production cost before proceeding to Washington to offer its lumber.

The National Lumber Manufacturers' Inter-Insurance Exchange has decided to invest 20 per cent. of its funds in government war bonds.

Douglas fir producers are taking steps, as are all lumber organizations, to utilize their cut-over lands for the production of crops to provide food for America and its allies.

Fear in the East that the proposed wooden ship campaign, for the relief of the submarine blockade, by building 2,000 wooden ships might fail because of a lack of lumber is relieved by a statement by Secretary R. S. Kellogg, of the National Lumber Manufacturers' Association, who says: "All information I have indicates that lumber in all necessary sizes and quantities is much more available and reasonable in price than steel. Many sawmills in the South and West can supply the necessary stock quickly; also many shipbuilding plants are located in those sections. Two thousand wooden ships would require only 3 to 5 per cent. of one year's production of lumber."

Government Organizing Shipbuilding Industry

The Imperial Munitions Board and the United States Shipping Board have been in consultation with one another to a considerable extent of late in regard to co-operation in the production of wooden ships in Canada and the United States. Standardized types of ships have been agreed upon, and it is probable that there will be a uniform schedule of prices and contracts. It is reported that Mr. R. P. Butchart, Victoria, B.C., will take charge of the business organization of the industry for the Imperial Munitions Board. A large organization will have to be formed.

Sir Thomas White, Minister of Finance, is giving the subject close personal attention, and is discussing it with United States authorities at Washington. It is probable that legislation will be introduced during the present session to provide for the creation of a shipping board, through which encouragement and direction may be given to the industry.

In connection with this situation an official statement was recently given out at Ottawa, which reads as follows:

"The Imperial Munitions Board has felt great regret at not being able to place a larger proportion of the work of making munitions in British Columbia and Western Canada generally on account of the prohibitive cost of paying freight on steel both ways. The British Government has now intimated that in view of the fact that all steel available for shipbuilding is absorbed by existing contracts, it is prepared to give orders for wooden ships. British Columbia, on account of its great lumber production, has facilities for the construction of these, and the board, which has for the last month been making investigations into the matter, has now obtained leave to let contracts.

"The Dominion Government has facilitated the matter by offering to advance to the board $10,000,000 for the purpose of assisting in the development of this new and important industry, and the Provincial Government of British Columbia has expressed its willingness to give all facilities in its power. Plans and specifications are being prepared and will be ready very shortly. It is hoped that construction will commence shortly and will proceed rapidly. At the present moment tonnage is as important a requirement of the Allies as shells, and by supplying it British Columbia will be doing its share in the munitioning of the allied forces as it has already done in its contribution to their fighting strength."

Demurrage Reverts to the Old Rates

The Canadian railway companies made an effort recently to have the Dominion Board of Railway Commissioners grant them permission to continue the temporary demurrage charge increases enforced by the board during the winter season on account of traffic congestion. These charges were enforced from January 1 to April 30, and Sir Harry Drayton, chairman of the board, has now announced: "It was clearly understood by everybody—not only by the shippers and the board, but by the railways themselves—that the order was a temporary one. Under these circumstances it cannot be renewed or further changes made in the order without the submission of necessary evidence and a necessary hearing."

New Demurrage Rules Proposed By Railways

In addition to announcing its decision not to allow the temporary demurrage increases to continue, the Board of Railway Commissioners report that they have received from the Canadian Car Service Bureau a new code of demurrage rules for approval. The more important sections of the new code are as follows:

Free Time Allowance—(a) Twenty-four hours (one day) after notice of arrival (exclusive of Sundays and legal holidays) will be allowed for any or all of the following purposes, if necessary:

1. For clearing customs.
2. For reconsignment or reshipment in same car.
3. When cars are held in transit for inspection or grading; stopped in transit to complete loading, to partly unload, or to partly reload. when such privilege of stopping in transit is allowed in the tariffs of the carriers.

(b) Forty-eight hours (two days) free time (exclusive of Sundays and legal holidays) will be allowed for loading or unloading all commodities.

Bunching—When, as the result of the act or neglect of any carrier, cars originating at the same point destined for one consignee at one point and moving via the same route are delivered or tendered at destination in accumulated numbers, the consignee shall be allowed such free time as he would have been entitled to had the cars been delivered or tendered in same number per day as were shipped per day. Claim must be presented in writing to carrier's agent within fifteen days, accompanied by written statement of all cars involved in alleged bunching, with date and point of shipment of each, as evidenced by bills of lading.

Customs Responsibility—Demurrage charges shall not be collected from the consignee for any delays for which the customs officials may be responsible.

Charge—After the expiration of the free time allowed a demurrage charge of three dollars ($3) per car per day, or fraction of a day, will be made until car is released.

A practical example of the manner in which the lumber manufacturers of the United States are supporting the government was seen in the placing of a contract for lumber for the building of cantonments for the Illinois candidates for the officers' reserve corps at the Fort Sheridan training camp. On Saturday night, April 28, the contract was placed for lumber, in the neighborhood of 1,000,000 feet. Monday morning the lumber was on the ground, ready for the carpenters. The same was true of other posts where officers will be trained. Nearly 1,000,000 feet of lumber will be used for floors alone in the new quarters for recruits at the naval training school near Chicago.

Striking Addresses Upon Co-operation

Retail Lumbermen at Southwestern Banquet Testify to Association Benefits and to Growth of the Movement

The Southwestern Ontario Retail Lumber Dealers' Association held a dinner in the Board of Trade assembly room, Windsor, Ont., on May 3, at which there were present about thirty of their own members and a number of visitors from Toronto and Detroit. Mr. A. N. McLean, Windsor, dean of the Windsor Retail Lumber Trade, opened the dinner proceedings in a brief address, referring to the extent and importance of the Windsor retail trade and to the remarkable fact that there had never been a failure in the lumber business in Windsor.

Mr. E. C. Russell, Walkerville, then took charge of the meeting and acted as toastmaster. He called, first of all, on the Mayor of Windsor, Mr. Charles R. Tuson, who referred to Windsor's remarkable growth and to the spread of the organization idea among important industries and trades. The day had passed, Mr. Tuson said, when men looked upon organization as a means of taking advantage of the public. He believed that the organization which retail lumbermen in Ontario were developing would be a powerful influence in promoting the welfare, not only of the trade, but of the public. Mr. Tuson concluded with a warm welcome to the visitors on the part of Windsor.

The next speaker was Mr. F. J. Robinson, Detroit, president of the National Retail Lumber Dealers' Association of the United States, and also president of the retail lumber firm of Lowrie & Robinson, Detroit. Mr. Robinson stated that he had been a consistent worker in the ranks of lumber trade organizations. In Detroit the trade believed strongly in the association diea. Much of the success of all branches of the lumber business in recent years was due to the fact that those engaged in it had learned how to work together in promoting their own interests and in increasing the efficiency of their ways of doing business. He outlined the growth of the association movement among retailers in those districts with which he was familiar, showing how it had originated with small meetings of groups of local retailers, who thus became better acquainted with one another, and how it had developed until to-day there were a great many local associations spread all over the country, and a National Retail Lumber Dealers' Association, of which he was fortunate enough to be the first president. This association had been the outcome of a meeting held at Chicago last fall, when representatives of the retail trade and of all the important retail associations held a meeting to consider how the interests of the trade could be most successfully promoted. The national association had started out in a large way, and he had the greatest confidence in its future.

Discussing association work, Mr. Robinson said that the first thing the trade must agree upon was the cost of doing business. He noticed that in Ontario this was estimated at 24 per cent. of the gross sales. That was a little larger than they had figured upon in Detroit, but during the past year the increased cost of labor and supplies had been so great that he believed they would have to increase their estimate of overhead expenses this year.

Association success, Mr. Robinson said, was very largely a matter of having confidence in one another. Without confidence of this kind they might as well leave the association idea alone, but with it there was almost no limit to the successful development of their mutual interests and the improvement of the way in which they served the public.

Co-operation the Foundation of Success

Mr. Charles A. Bowen, secretary-treasurer of the National Retail Lumber Dealers' Association of the United States, was the next speaker. Mr. Bowen's remarks were full of interest to his hearers, all of whom listened attentively throughout his excellent discourse. Co-operation, Mr. Bowen said, not selfishness, spelled success. This statement might almost be considered an axiom. Organization could be seen in progress on every hand—in connection with capital, labor, education, hygiene, politics, and religion. Business men were now fast coming to realize the fact that only as they helped one another were they able to help themselves. Organization was, in short, the force that made real achievement possible.

There was no one single business or industry, he believed, which needed co-operation of this kind more than the lumber business, regardless of the fact that those who did not appreciate its necessity and the facts of the case might not agree with him. Unfortunately for the retail division of the lumber business, there had been, until recently, a great lack of co-ordinated effort to promote the interests of its members, because they had been able to obtain a fair volume of business without very much effort on their own part, and because also of the false idea that lumber had its fixed place in the industrial field and could not be supplanted, which led to an entirely erroneous feeling of independence; but, like the sower of wheat referred to in the Bible, who slept while his enemy sower tares, the retail lumberman and the manufacturers and distributors of lumber in general had slept while the substitute material manufacturers were wide-awake, sowing their materials in the fields of the lumber business and creating a demand for their goods which sprang up and began to choke out the lumber business before the lumbermen woke up. Then, when they did wake up, it was with a sort of start. Like an individual suddenly coming out of a deep sleep, they did things which they thought were all right, but which they would not have done had they been really wide-awake. They were filled with consternation and were stampeded into measures which were not to their advantage. Mr. Bowen believed that the retail lumber dealers were now becoming more thoroughly awake, and were taking measures to protect their business interests in a sane and safe manner, and it was none too soon for them to do so. However, they were finding out that conditions had changed greatly since they were last awake, and that it was necessary for them to adjust themselves to the new conditions in order to keep up with the procession.

Governments in the United States had for a long time thought that they were doing the people great service by discouraging organ-

Charles Hubbell, Thamesville, Ont., President.

J. C. Scofield, Windsor, Ont

C. E. Naylor, Essex, Ont.

ization and big business. They had found out, however, that this was a mistake and that they might just as well try to discourage the rising of the sun.

Irresistable Tendencies of the Age

Concentration and co-operation were the irresistable tendencies of the age and governments were commencing to realize this more than ever before. Business men laboring men, even the farmers, would unite whenever they believed they would prosper better by so doing. The legal prohibition of such co-operation had been found by governments to be fatal, and to be based upon error. In fact, there was nothing that was finer or more beneficial for mankind to-day than co-operation. It was better to co-operate than to have unfair and unscrupulous competition. It was better for men to work together than to fight one another, and he believed that business men were rapidly coming to the complete realization of this fact. Every man who succeeded must have first realized to a very great extent that independence was absolutely out of the question. He must recognize his fellow-men and co-operate with them. Men only succeeded as they united their efforts and co-operated. A man could accumulate and succeed but little by himself.

All of this pertained to the lumber industry very materially. Various cities of the United States, and he presumed of the Dominion of Canada, had had their different associations of retail lumbermen. There had been district associations combining a few cities, also provincial or state associations, where they had united to try and alleviate their conditions. But throughout the United States and the provinces of Canada there had never been a really co-ordinated association among lumber retailers to look after the best interests of their business. In the United States there was found to be such a need and a wish for this that the national organization had been formed in Chicago last September. Since that time they had been going along with the idea of co-ordinating the forces of the retail lumbermen, particularly those of the large cities in the United States.

The Necessity for a Central Association

There had been an amazing ignorance in some sections among the retail lumber dealers as to the application and uses of wood. Species and sizes had been allowed to be used for purposes for which they were entirely unfit. With a good many retailers lumber had been just "lumber." Instead of co-operating with their customers to get them to purchase the right class of material, they had just sold them whatever they asked for. This had had a reflex action upon the retail lumber business, and in a good many instances had caused prejudices to arise which had been detrimental to the trade and had left a wide avenue for the substitute material man to get in.

There had never been any effort on the part of retailers in the cost of doing business. Retailers had been going along in a haphazard manner, in the hope that they were going to make some money. Recently there had been an effort in all directions to arrive at a proper knowledge of the cost of doing business, and surveys were now being taken in various sections of the country by experts who were attempting to show the retail dealers exactly what their costs were, and were succeeding in getting retailers to use a sound business system for finding out what their lumber cost them.

There has never been any effort on the part of retailers in the direction of scientific advertising of their commodities. There had never been any effort in the direction of looking after their interests in building codes. There were, in fact, a hundred and one other things of great importance to retailers which were now occupying the attention of the national association, and in connection with which they hoped to be of great service to retailers.

There was an amazing amount of unethical shipment going on in the United States. Manufacturers had been going over the heads of retailers in many cases and selling to the contractor and the consumer. The transit car evil had been allowed to grow to great proportions. To take up and work out all these problems was the task upon which the national association was engaged. They felt that it was a very necessary work, and that, by co-ordination of their forces, they would be able to get the retailers to conduct their business in a proper, businesslike manner. They meant that they must be taught to push their materials, to learn how to become "merchandisers," and to know the kind of material they were selling and the purposes for which it is best suited. The retailer should act as an adviser to his customers and to the trade generally. Then they must develop along the line of co-operation with one another. The national association was devoting much of its effort to inducing the retailers to come together on a friendly basis and become personally acquainted, as they had done in Detroit. When men met together and became personally acquainted they invariably found that they had something in common, even if they were competitors, and this made for confidence and mutual respect. They had all made their errors in conducting their business. The necessity to-day was to eliminate these errors as far as possible. One of the first things to be done was to persuade the retailers to take their eyes off their competitors for a time and get them on their customers, so as to see more clearly what the customers wanted. The national association intended to act as a sort of parent body for the retail organizations all over the country. Already they were accomplishing great things, and hoped to accomplish far more in the future.

Co-operation was the product of sane minds. The men who were sane, wide-awake, and keen were going into organization work in every line. They were finding that the greatest good accrued to the man who co-operated with his fellows; who would put his shoulder to the wheel and seek to promote the benefit of his fellows as well as himself. Mr. Bowen did not think that organization work should be looked upon from the dollars and cents point of view, because it had, in fact, a very uplifting influence. It created competition and square dealing. It was a good work that the national association had started. While they were missionaries to a certain extent, their work in the long run was certain to be a great success. They were glad, moreover, to see that lumbermen in Ontario were developing the same ideas and working along the lines of co-operation. There never had been a more fitting time for men to co-operate than the present. They were trying, as a nation, to co-operate for the benefit of their country in fighting on the side of right, and they believed that, just by that very co-operation, they were going to succeed. The whole situation simmered down in the long run to every individual business firm and man, and co-operation was the only way in which they could be successful.

Credit Bureau Work

Mr. J. F. Deacon, manager of the Detroit Lumbermen's Credit Bureau, was the next speaker. He referred to the benefits obtained from a credit bureau, prefacing his remarks with the statement that the making of credits successfully, without any other assistance than intuition, was a gift, and was only to be found in rare cases. There was nothing that was so galling to a retail lumberman, about the first of January, as to be compelled to charge off a very large account which, earlier in the season, had promised to be a valuable asset. Every time the dealer looked at his ledger this account leered at him, and seemed to make comment upon his judgment of human nature, constantly reminding him that he was an easy mark. It was a sad comment on the retail lumberman that a man who would not be trusted for $10 at his grocery shop or at his butcher's could get anywhere from $500 to $2,000 worth of lumber on credit. This class of credit was granted in the lumber business almost every day. The commonest method of procedure was for such a man to approach the dealer with an open countenance and a look of intense earnestness, accompanied by a line of talk which left the impression that at least twenty or thirty juicy house jobs were to be let, and at the same time this man would insinuate that your competitor was trying to get the business, but that he liked the way you held your head and folded your necktie, and that something attracted him to you, and he felt that he ought to give you this business. Frequently these men would go to your office and would apparently be quite honest in their statements. They felt that they could accomplish something if they only got a chance, and they looked to you to finance them; and, under the influence of the insinuation that your competitor would get the business, you fell for that line of talk, although your better judgment told you that it was not business.

The usual course of events then ran about as follows: The first payment became due and he paid it. The second payment became due and he paid it. The third payment became due and he went a little behind, a week or ten days. The fourth payment became due and the situation demanded all your patience, yet the account drifted along. But about the time the second payment became due the customer had begun to realize that he was not so much of a financier as he thought. So he went to your competitor and told him that your service was getting a little poor and off color, and perhaps he would like to place an order or two by way of comparison. Your competitor falls for this, and history repeats itself. This man establishes the same credit all the way down the line, and when he gets through he can pay only a few cents on the dollar. With a co-operative credit bureau such a thing as this could not happen.

Mr. Deacon then gave a description of the operation of the credit bureau in Detroit. The foundation of a credit bureau should be the selection of a man in whom the dealers had confidence—a man of judgment and tact, who knew when he had gone far enough and how far to go. This man should be furnished with the various important classes of information available in the different offices of members of the bureau in regard to their customers. All this information should be tabulated and rendered available for the purpose of checking up such parties as those to whom Mr. Deacon had already referred, who made a practice of obtaining credit to which they were not entitled.

A credit bureau formed along these lines furnished a splendid nucleus for the formation of a lumbermen's association. It did away with a great many petty jealousies and suspicions. The trade could have no better asset for its own benefit nor could they spend money better than in creating such a bureau.

Brief speeches were also delivered by J. J. Commeford, president of the Detroit Lumber Company; H. Boultbee, editor of the Canada Lumberman; Mr. Cartier, Detroit; J. B. Reid, Toronto; Joseph Oliver, Toronto; W. D. Carter, Windsor, and George H. Belton, London.

Retailers Hold Meeting at Windsor, Ont.

Southwestern Dealers Enthusiastic Over Outlook for Association Movement—Important Subjects Discussed—Banquet Held in Evening

The Southwestern Ontario Retail Lumber Dealers' Association held an important meeting at Windsor, Ont., on May 3. This association has been in existence only for a comparatively short time, but has made such substantial progress that indications are strong that its success will result in the formation of other retail associations in different parts of Ontario, and that, further, the association movement among Ontario retail lumbermen will develop until it covers the whole province and possibly includes a central organization handling affairs of mutual interest to all the local associations.

The meeting at Windsor was held with the definite object in view of discussing, and possibly promoting, the ideas outlined above. There were in attendance about thirty retailers from various important centres in Southwestern Ontario. The discussion included the association project and a number of other matters that are of definite importance to retailers, such as cost accounting, trade ethics, etc.

Mr. Charles Hubbell, Thamesville, Ont., president of the association, occupied the chair during part of the meeting, and Mr. J. C. Scofield of the Windsor Lumber Company, Windsor, Ont., during the balance. The first subject discussed was the suggestion that the association should place itself on record in favor of the creation of other local retail lumbermen's associations and of a central association to deal with matters of mutual interest to the local associations. The members present were all in favor of this idea. The benefits which they had received from their own association have convinced them of the wisdom of such a plan, and all who spoke gave evidence of a desire to see their fellow-retailers in other parts of the province reaping similar advantages. There was no difference of opinion upon this subject, and the discussion resolved itself simply into a consideration of ways and means and of the advantages to be expected.

In the end a resolution was introduced and carried to the effect that the Southwestern Ontario Retail Lumber Dealers' Association feel that it is advisable to form local associations and a central association of retail lumbermen in Ontario. In accordance with this resolution a committee was appointed, consisting of Messrs. J. C. Scofield, Windsor; W. A. Hadley, Chatham; George H. Belton, London, and John McGibbon, Sarnia, who are to take whatever steps they can to promote the development of such associations.

The subsequent discussion related chiefly to such matters as the importance of accurate cost accounting. Several members dealt emphatically with this question, the chief centribution to the discussion being made by Mr. J. C. Scofield, who distributed an interesting printed table upon the subject. Mr. Scofield drew attention to the pitfalls to be found in connection with loose methods of cost accounting, particularly those which are based upon the number of thousand feet handled by a yard, instead of the percentage of net profits as compared with gross sales. According to Mr. Scofield's experience, and incidentally according to the experience of other Ontario retailers, it costs about 24 per cent. of the annual gross sales to take care of overhead charges. This overhead is made up of interest on loans, investments, etc.; rental of property (where interest is not charged); taxes, water rates, advertising, insurance, travelling, office and stable expenses; labor and salaries of all descriptions; depreciation on buildings, machinery, horses, equipment, etc.; and 2 per cent. for bad accounts.

Profit and Loss Analyzed

Mr. Scofield had prepared a table which showed that if it costs 24 per cent. on gross sales to cover overhead expenses, then:

15% added to delivered cost, or 13% on gross sales, nets a loss of 11%
20% added to delivered cost, or 16-2/3% on gross sales, nets a loss of 7-1/3%
25% added to delivered cost, or 20% on gross sales, nets a loss of 4%
30% added to delivered cost, or 23% on gross sales, nets a loss of 1%
33-1/3% added to delivered cost, or 25% on gross sales, nets a profit of 1%
35% added to delivered cost, or 26 % on gross sales, nets a profit of 2%
37½ % added to delivered cost, or 27% on gross sales, nets a profit of 3%
40% added to delivered cost, or 28½% on gross sales, nets a profit of 4½%
43% added to delivered cost, or 30% on gross sales, nets a profit of 6%
45% added to delivered cost, or 31-1/3 on gross sales, nets a profit of 7-1/3%
50% added to delivered cost, or 33-1/3% on gross sales, nets a profit of 9-1/3%
51% added to delivered cost, or 34% on gross sales, nets a profit of 10%

The members present discussed this subject in detail for some time, and the meeting then adjourned.

In the evening the members held a dinner in the assembly room of the Board of Trade, and had, as their guests, a party of fifteen Toronto retailers and a number of representatives of the trade from Detroit. The report of this dinner is published elsewhere in this issue.

Those in attendance at the meeting and the banquet were: Charles Hubbell, Thamesville, president; W. J. Taylor, Ridgetown, vice-president; B. F. Clarke, Glencoe, secretary-treasurer; W. H. Longfield, Mt. Brydges; F. H. Laird, Dresden; P. Piggott, Chatham; G. D. McPherson, Merlin; W. A. Hadley, Chatham; Charles Hadley, Chatham; James Richardson, Tilbury; T. C. Warwick, Blenheim; Mr. Bennie, Leamington; W. Conklin, Kingsville; C. E. Naylor, Essex; John Goatbee, Comber; John Fraser, Sandwich; W. Stephenson, Appin; J. C. Scofield, Windsor; George C. Haugh, Windsor; A. N. McLean, Windsor; E. C. Russel, Walkerville; Walter Piggott, Windsor; F. Villeneuve, Walkerville; John McGibbon, Sarnia; E. C. Barre, Sarnia; George H. Belton, London; George N. Kernohan, London; John T. Wallace, London; C. H. Belton, Sarnia, and J. A. McIntyre, Rodney, in addition to a number of visitors from Detroit and Toronto, lists of whom appear elsewhere in this issue.

Toronto Retailers Visit Detroit

Study Association Methods There and Attend Southwestern Retailers' Convention at Windsor, Ont.

A party of fifteen Toronto retail lumber dealers paid a visit on May 3 and 4 to the dealers of Windsor, Ont., and Detroit, Mich. The object of the trip was twofold—first, to attend the meeting of the Southwestern Ontario Retail Lumber Dealers' Association at Windsor, and, second, to study the association activities of the retail lumbermen of Detroit. The party leaving Toronto consisted of Messrs. W. C. Laidlaw, J. B. Reid, W. J. Hetherington, T. E. Rathbone, T. H. Hancock, W. J. Smith, Robert Smith, Douglas Smith, T. A. Patterson, A. E. Eckardt, G. W. Boake, William Barrett, W. C. Irvin, R. L. McCormack, Joseph Oliver, wholesaler, who was making a business trip and joined the party, and H. Boultbee, editor of the Canada Lumberman. The party left Toronto on Wednesday, May 2, by a midnight train, reaching Detroit in the morning. Upon arrival at Detroit they were received by Mr. J. F. Deacon, manager of the Detroit Lumbermen's Credit Bureau, and Mr. J. J. Commeford, president of the Detroit Lumber Company. The morning was devoted to a visit to the Detroit Building Materials Exhibition and to the plant of the Detroit Lumber Company, the party being taken there in automobiles. Under Mr. Commeford's guidance they were shown completely through the extensive office, plant, and yards of this progressive company, and were greatly interested in its splendid equipment, one of the chief points of importance being the fact that the plant is entirely operated by electricity. Another interesting point commented upon by all the visitors was the careful manner in which all finished stock is housed, being kept entirely indoors and thus preserved from any deterioration on account of the weather. The layout of the yards was also a subject of much approval. Everything in the yards is arranged in the most effective manner to serve the needs of the plant. The method of piling lumber was one of the chief features of interest, all the pile bottoms consisting of moveable cement blocks, resting upon timbers.

In the afternoon the party were taken to the Ford plant and conducted through it from one end to the other, thus obtaining an intimate knowledge of the systematic methods employed by this company.

On Thursday evening the visitors attended a banquet given by the Southwestern Ontario Retail Lumber Dealers' Association, in the Board of Trade rooms at Windsor, Ont. A detailed report of this banquet is published separately in this issue. The forenoon and early afternoon of Friday were devoted to a pleasure trip in automobiles to Belle Isle and to a meeting, at which Mr. J. F. Deacon described in detail the development, progress, and operations of the Detroit Lumbermen's Credit Bureau and association activities. The Toronto lumbermen were particularly interested in this work, having already established a similar bureau at Toronto, and thus being able to make detailed comparisons between the two systems. On Friday afternoon at 4 o'clock the party embarked upon the train for the return trip to Toronto, which was reached at 10.30 p.m.

The visit to Detroit and Windsor was so thoroughly appreciated and beneficial to those who attended that a proposal is already being discussed for a similar visit to Buffalo in the near future.

Mr. M. M. Harrell, a well-known lumber broker of Vancouver, B.C., died recently in that city. Mr. Harrell had resided in Vancouver for the past twenty years, and was widely known among lumbermen.

Mills in Southwest Washington last month handled an order of 2,000,000 feet of timbers and lumber required for general repair work on the Soo branch of the Canadian Pacific Railway. The material was shipped to the company's Minneapolis yards.

Graves, Bigwood & Co. Open Office at Montreal

The firm of Graves, Bigwood & Co., Toronto, are opening an office at Montreal, at Room 327, Coristine Building, where their interests will be looked after by Mr. C. Villiers, their Eastern representative, whose portrait we are pleased to publish herewith. Mr. Villiers has been in the service of Graves, Bigwood & Co. for about ten years. He has had experience in all branches of the business, from the woods operations to the selling of the finished product. He commenced on the inspecting end at the mills of the company at Byng Inlet and also had experience in measuring and culling logs in the woods. From then until the present he has gone through the various lines of the company's operations, and is familiar with its business throughout. Subsequently he went upon the road for the firm in Northern Ontario and in the Montreal district. He has been travelling the district east of Toronto for the past five years. Before his connection with the firm of Graves, Bigwood & Co., Mr. Villiers was with the Conger Lumber Company, at Parry Sound.

C. Villiers, Montreal.

Mr. Villiers is well known to the trade throughout Eastern Ontario, and, with the increased facilities afforded by the opening of a new office at Montreal, he will be able to increase the company's extensive business in Eastern Canada. The object of the company in opening this office is to keep more closely in touch with their Eastern business, which has been extending greatly during the past few years. Mr. Villiers will not devote his time solely to the selling end of the business, but will attend also to the purchasing of Eastern stocks.

Maurice Welsh Joins with Campbell & Paynes

Mr. Maurice Welsh, who has been with the Campbell, MacLaurin Lumber Company, Ltd., Montreal, P.Q., for the past ten pears, as their Ontario manager, has joined forces with the firm of Campbell & Paynes, wholesale lumber dealers, Traders Bank Building, Toronto, and the firm will be known in future as Campbell, Welsh & Paynes. Mr. Welsh took up his new duties on May 1. His long acquaintance with the trade in Ontario makes Mr. Welsh a valuable addition to the Campbell & Paynes forces.

Personal Paragraphs

Bartram & Ball, Ltd., wholesale lumber dealers, Ottawa, Ont., have opened an office at 215 Drummond Building, Montreal, P.Q.

Knox Brothers, wholesale lumber dealers specializing in British Columbia lumber, have removed from Imperial Bank Chambers to 513 Drummond Building, Montreal.

Lieut.-Col. G. White, Montreal, of the Canadian Foresters, has been gazetted temporary colonel. He was responsible for raising two battalions of Canadian foresters.

E. J. Lythgoe, formerly with the Rat Portage Lumber Company, Winnipeg, for many years, is now associated with W. F. Hanbury in the wholesale lumber business, with offices in the McGreevy Block, Winnipeg, Man.

C. A. Lyford and H. E. Brinckerhoff, 15 East Fortieth Street, New York, have formed a partnership, under the name of Clark & Lyford, forest engineers. They will act as Eastern agents for Clark & Lyford, Ltd., of Vancouver, B.C.

Hon. N. M. Jones, of St. John, N.B., and Bangor, Me., was honored with a banquet by many of his friends at Bangor recently, upon the occasion of his fifty-ninth birthday. Visitors were present from Maine, Massachusetts, and New Brunswick.

Mr. Robson Black, secretary of the Canadian Forestry Association, Ottawa, has returned from a lecture tour of Western Canada, where he addressed many pubilc meetings on the subject of forest conservation. Noonday addresses were given before several of the Canadian clubs and boards of trade.

Major J. C. Hanington, O.C. of the special forestry unit, and Major J. G. Kirkpatrick, second in command, have completed a successful recruiting tour of the lumbering centres in New Brunswick. This is the second forestry unit to be organized in New Brunswick. It will consist of 11 officers and 350 men. All the recruits will continue at their present work until the unit is called upon to mobilize.

Lieutenant Munro Reported Killed in Action

Unofficial information has been received by Mr. Hugh Munro, 69 South Drive, to the effect that his son, Lieutenant William McClain Munro, was killed in action on May 1. The information was received by Mr. T. Albert Brown, 181 Crescent Road, Toronto, in a cable from his son, Lieut. "Bud" Brown. The cable read as follows: "Bill Munro instantly killed May 1. Military funeral." No official confirmation of Lieut. Munro's death had been received by the parents at the time the Canada Lumberman went to press. Lieutenant Munro would have celebrated his twenty-first birthday on May 3. He was educated at St. Andrew's College and the university schools. He enlisted with a Highland battalion at the age of 18, and took a course for a commission at the Canadian Military College at Crowboro. Some time ago he was transferred to the Royal Flying Corps, but subsequently returned to the infantry.

Lieutenant Geo. H. Rathbone Reported Missing

Lieutenant George H. Rathbone, son of Mr. George Rathbone, well known to the retail lumber trade of Toronto, is reported missing in France. Lieutenant Rathbone was employed as an observer in the Royal Flying Corps. The report states that he has been missing since April 29, but hope has not been given up that he may have become a prisoner with the Germans. No word of his having been killed has been received, and as both the enemy and Allies always carry a wreath to their opponent's lines and drop it to announce the death of an enemy aviator, and no such word has been received in Lieutenant Rathbone's case, good reasons for hope are reported.

Lieutenant Rathbone is 21 years of age. Before going overseas he was with the 204th Battalion, but about last October he went across with a special draft of officers, ahead of his battalion. He had only been in France for a month previous to the report that he was missing. Lieutenant Rathbone, before enlisting, was engaged at the plant of George Rathbone, Ltd., Toronto.

Death of Alexander Baptist

Mr. Alexander Baptist, Three Rivers, P.Q., a pioneer of the lumber industry of the St. Maurice Valley, died on May 3, aged 81. Mr. Baptist was born at Port Levis in 1836, but in his early years moved to Three Rivers, where his father, Mr. George Baptist, became engaged in the lumber trade and held large limits. On the death of his father, Mr. Alexander Baptist and his brother John took over the business, and later, after the death of Mr. John Baptist, it was reorganized and largely increased, with mills at Three Rivers. Mr. Baptist was at one time the most extensive limit-holder in the Province of Quebec, owing immense tracts in the St. Maurice Valley and also in the Calumet district. Some five years ago he sold large limits and mills in the St. Maurice Valley to the Wayagamack Pulp and Paper Company, and also disposed of limits to the Laurentide and other companies, while in the Calumet district part of his holdings are now owned by the Riordon Pulp and Paper Company.

British Columbia Trade Enjoying Heavy Demand

Mr. J. O. Shields, a prominent British Columbia lumberman, in an interview published recently in the Toronto Globe, says that never at this season of the year has the demand for lumber been so strong in the Prairie Provinces as it is to-day. Usually in January, February, and March the demand has fallen off appreciably, but so great was the amount of business already in hand this year that many of the mills withdrew their trevellers from the road for the time being. The situation was also complicated by the shortage of cars, but, generally speaking, business has never been so good as it now is for this time of year. Moreover, the lumbermen have been converting their business from credit to cash. Those who formerly gave long credits are now changing to a cash basis. Many prairie farmers who formerly used little dug-outs for barns have recently been erecting new buildings for every purpose. This is particularly the case in Alberta and Saskatchewan. Building activity is increasing in many of the prairie towns. At one time it was said that Saskatoon had enough houses to suffice for the next ten years, but new buildings have to go up now to accommodate the families who are coming in, as every house is occupied. The farmers have been shipping large quantities of grain, and therefore have plenty of money. According to Mr. Shields, Coast mills, including those of Washington and Oregon, are at least 13,000 cars behind in their orders, and the present season promises to be a very busy one for all, with a good probability that, with satisfactory crops, still greater prosperity will be experienced in the near future. The farmers, therefore, are having considerable difficulty on account of the shortage of labor. Provincial and Dominion governments were doing all they could to assist in this connection, and he understood that they were arranging to take in 12,000 laborers from the Northern States.

New Rules for Hardwood Grading

Inspection Committee Draws up Proposed Regulations for Selects and Special Grades

The Grading Rules Committee of the National Hardwood Lumber Association have made good progress in connection with the revision of the rules, and have now drawn up a set of revisions which it is believed will meet with the approval of the members when the annual meeting is held at Chicago, on June 14 and 15. The chief alterations proposed that are of importance to the trade in Canada are as follows:

Proposed Rules for Selects

Under caption, Standard Inspection—Ash, basswood, bay poplar (tupelo), beech, birch, black gum, buckeye, butternut, cherry, chestnut, cottonwood, soft elm, red gum, sap gum, quartered red gum, quartered red gum sap no defect, hackberry, locust, magnolia, hard maple, soft maple, plain sawn oak, quarter sawn oak, red birch, sycamore, quarter sawn sycamore, willow, and walnut.

Sap is no defect unless so stated under the caption of the respective woods.

Inspection must be made from the good side of the piece, which must grade not below seconds on the good side and not below No. 1 common on the poor side, excepting as hereinafter specified.

Selects must be 4 inches and over wide, 6 feet and over long, admitting 30 per cent. under 12 feet long and 5 per cent. of 6 and 7 feet lengths.

Pieces 6 and 7 feet long must be clear one face, the reverse side sound, and not below the grade of No. 1 common.

Pieces 4 inches wide, 6 feet and over long, must have one clear face and two good sides; the reverse side not below the grade of No. 1 common.

Pieces 5 inches wide, 8 feet and over long, must have two good edges, and may have one standard defect in pieces 12 feet and over long; the reverse side not blow the grade of No. 1 common.

Pieces 6 inches and over wide, 8 feet and over long, must grade not below seconds on the best face, and not below the grade of No. 1 common on the reverse side.

Will admit pieces 6 inches and over wide, 10 feet and over long, containing defects which do not cause a waste of more than 12 inches long in one cross-cutting; the clear face cuttings to be 3 feet and over long and the reverse side of cuttings sound. The poor side of the piece must not be below the grade of No. 1 common.

Will admit pieces 7 inches and over wide containing defects which do not cause a waste of more than one inch in width by the full length of the piece or its equivalent at one or both ends. The reverse side must not be below the grade of No. 1 common.

Will admit pieces 6 inches and over wide, with one clear face, the reverse side sound and not below the grade of No. 2 common.

In lumber 5/4 and over in thickness 20 per cent. of the quantity may grade not below No. 2 common on the poor face, provided it will work 80 per cent. sound.

Select walnut to grade same as above, except lengths shall be 6 to 16 feet, admitting 50 per cent. of 6 and 7 feet lengths.

All the woods where the grade of No. 1 common is 4 inches and over wide shall be 3 inches and over wide, not to exceed 5 per cent. of 3 inches widths.

Special Inspection

No. 1 common face to be inspected from the good side of the piece in the same size and number of cuttings allowed in the present rules for No. 1 common. One face of the cuttings to be clear, the reverse side sound.

No. 2 common face to be inspected from the good side of the piece in the same size and number of cuttings allowed in the present rules for No. 2 common. One fact of the cuttings to be clear, the reverse side sound.

Sound, square-edged plank and timbers shall be sawed to specified sizes and free from unsound defects which perevent the working of the piece in the full width and length for the purpose intended. Sound heart boxed or showing on the surface, worm holes, an occasional grub or knot hole (not extending through the piece), or slight wane on one or two corners may be admitted.

Where the No. 2 common grade specifies sound cuttings a special grade of No. 2 common may be made, specifying clear face instead of sound cuttings.

Where the No. 2 common grade specifies clear cuttings a special grade of No. 2 common may be made, specifying sound instead of clear face cuttings.

The changes proposed have also been accepted by the Michigan Hardwood Association and the Northern Hemlock and Hardwood Association.

Mr. A. E. Clark, of Edward Clark & Son, Toronto, who is a member of the Grading Rules Committee of the National Hardwood Lumber Association, has been active in the work of revising the rules, and looks forward to their adoption. "In so far as Canada is concerned," Mr. Clark says, "we are more particularly interested in the rules for grading of Northern hardwoods, and the only things that affect the present rules on this basis are the grade of selects under 'standard' inspection, and the grade of No. 1 common face and No. 2 common face under 'special' inspection. An equal amount of hard work and time was spent on the preparation of the other rules, but I would like to comment on these rules because they are of special interest to our Canadian trade.

"There was a great diversity of opinion in the last meeting of the Inspection Rules Committee of the National Association, among its members, as to how far and how radical these changes should be. We had propositions from a great many sources, some of which the Rules Committee considered were very radical. After a great deal of discussion the proposed rules were submitted, as being reasonable, meeting the apparent requirements of the trade with as little disruption of the present system of doing business as we considered possible, and likely to meet with the wishes of our members.

"The rule as specified for 'selects," summed up briefly, means that in thin lumber the good side of the board must be at least a second and the back of the board cannot be worse than a No. 1 common. On thicker lumber the rule applies similarly, outside of the fact that 20 per cent. of the whole quantity may be No. 2 common on the back face, provided it works 80 per cent. In this way we have protected the manufacturer by showing him exactly how much lumber we purpose raising from the lower grades into the grade of selects, and I think we have defined definitely what he may expect. We have also endeavored to eliminate the possibility of any manufacturer taking advantage of these rules in order to miss-manufacture lumber.

"In dealing with the grades of No. 1 and No. 2 common face stock, it was represented to us that certain sections of the country required a grade of this nature for their trade. If it were put into standard inspection it would disrupt and disorganize our present rules of No. 1 and No. 2 common, and consequently, to meet this sectional demand, these rules are made under 'special' inspection, and can be secured as a national inspection at any time by application to the association, showing that you have a contract of this nature.

No. 1 common face is a grade similar to our present No. 1 common, except that the lumber is clear face cutting instead of clear cutting; and, similarly, speaking of No. 2 common face, this grade is similar to our present No. 2 common, except that the cutting is clear face cutting instead of clear cutting. These two rules, under special inspection, will not interfere in any way with our present rules of No. 1 common and No. 2 common, and can only be used as a special inspection. By pursuing this method I think we have secured—provided our association will accept the rules—a method of giving an inspection which is demanded in certain sections of territory, but is not required in a great many sections. I sincerely hope that the members of the association will go into these rules very carefully before passing any adverse opinion upon them, and I think that a study of the rules should convince any fair-minded member that they are at least an advance step in national inspection."

British Columbia's Forest Output Increased

According to reports submitted in the British Columbia Legislature in Premier Brewster's budget speech, the value of the products of British Columbia for 1915 and 1916 were as follows:

	1916.	1915.
Forest	$35,528,000	$29,150,000
Mines	42,300,000	33,000,000
Fisheries	14,538,320	11,515,086
Agriculture	32,259,157	31,127,801

The estimated value of production during 1916 by the forest industries was $35,528,000, an increase of more than $6,000,000 over the 1915 total, and greater than the totals for 1914 and 1913. The production of shingles and boxes has shown a noticeable increase.

The figures are:

	1915.	1916.
Lumber	$15,300,000	$21,075,000
Pulp	3,200,000	3,520,000
Shingles	3,500,000	4,500,000
Boxes	750,000	1,833,000
Piles and poles	1,200,000	650,000
Mining props and posts	400,000	1,000,000
Miscellaneous (cut by railroads, mines, settlers, cordwood, etc.)	900,000	1,000,000
Additional value contributed by industries	1,750,000	1,650,000
Product of Dominion lands	1,800,000	.....
Lath	150,000	150,000
	$29,150,000	$35,528,000

While such factors as the labor scarcity, car shortage, increased cost of production, and the difficulty in securing auxiliary material for manufacture have greatly retarded a general development of conditions in the lumber industry, better prices have become general, and there have been increased demands. In spite of the general difficulties encountered by the manufacturers, 1,280,000,000 feet were scaled last year, a 25 per cent. increase over the total of the preceding year. The scarcity of tonnage reduced the export business from 58,000,000 feet in shipments for 1915 to 44,000,000 feet last year.

The province drew revenue from forest sources in 1916 amounting to $2,000,000, a total slightly in excess of the amount for 1915. It is estimated that $2,300,000 will be the direct forest revenue for the coming fiscal year, an amount that includes various royalty arrears that are now being called in . The general weather conditions were favorable, causing less fire hazard than in any year since 1913. Such damage as occurred to timber and property was mainly in the northern districts. The forest protective system has been considerably improved by the application of detailed work in filling important positions in the service with the most competent men.

A. J. H. Stewart, secretary of the Gloucester Lumber and Trading Company, Bathurst, N.B., died recently, after a long illness.

The Enquiry Corner

Answers to Questions by Readers
Can We Help You?

Wood Preservation in Canada

Editor Canada Lumberman:—

Kindly let us have information regarding the extent of and the outlook for the wood preserving industry in Canada today. We are extensively interested in this industry in the United States.—Yours truly, Creosote.

In order to reply to the above enquiry the Canada Lumberman has obtained from the Forest Products Laboratory of Canada, a review of the general situation, which is as follows:—

Wood preservation is not yet very extensively practiced in this country. Until recent years wood which decayed in service could usually be replaced at relatively low cost, and therefore, little if any attention was paid to processes by means of which the life of the wood could be lengthened.

Owing to the decreasing supplies and rising cost of timber, especially of the more durable kinds, and also to the increasing cost of labor, considerable attention is now being directed, by large consumers of timber and others, to the possibilities of preservative treatment.

Canada undoubtedly offers a wide field for wood preservation applied to railway ties, wood paving blocks, mine timbers, fence posts and wood used for many other purposes in which decay is a factor in its service. While this field is at present largely a prospective one, the noteworthy development of the industry in the United States, especially in the last ten years, is, we consider, sufficient to warrant the conclusion that that development can be paralleled in Canada on a proportional scale. One of the largest American creosoting concerns has had sufficient faith in the possibilities of the Canadian field to establish a Canadian company which operates a fully equipped treating plant at Trenton, Ont.

With regard to railway ties, practically no treated timber was used in Canada prior to 1911. In that year some 200,000 ties, or about 1.4 per cent. of the total number used, received preservative treatment. At the present time around 7 per cent. are annually treated.

Considerable areas of treated wood block paving, both for highways and interior factory flooring, have been laid in this country in the past few years. This paving has been adopted to some extent in a number of Canadian cities, including Vancouver, Victoria, Calgary, Moose Jaw, Winnipeg, Toronto, Hamilton, Ottawa and Montreal.

There are at present six commercial treating plants in Canada, of which the following particulars may be found useful:—

Name of Firm	Location of Plant	Year Built	Cylinders No.	Diam. (in.)	Length (ft).
Alex. Bruce & Company,	Fort Francis, Ont.	1912	1	84	76
Canada Creosoting Co., Ltd.	Trenton, Ont.	1913	1	84	134
Dom. Creosoting Co., Ltd.	Vancouver, B.C.	1910	2	90	100
Dom. Tar & Chemical Co.,	Sydney, N.S.	1911	1	78	85
Dom. Tar & Chemical Co.,	Transcona, Man	1912	1	78	84
	(near Winnipeg)	1912	3	78	135
Vancouver Creosoting Co., Ltd.	N. Vancouver, B.C.	1916	2	84	132

It may be of interest to mention incidentally that we have a fully equipped pressure experimental plant at these laboratories, in which ties, paving blocks and other timber can be treated by the various commercial processes. An experimental investigation of the preservative treatment of some important Canadian tie woods is now in progress.

Wood preservation may be said to have made a good beginning in Canada, and the industry is without doubt capable of considerable expansion. The amount of enterprise and initiative displayed by commercial wood preserving concerns will probably have an important influence on the rate of growth of the industry.

Further Restricting Timber Consumption in England

A further measure of a drastic nature to conserve timber supplies in Great Britain has been effected by a new Army Council order. The new order restricts the monthly sale for consumption to 1 per cent. of the aggregate stocks of merchants on April 1 last.

No merchant may sell during any month a quantity exceeding 1 per cent. of his stock as it stood on April 1. Even this amount may not be sold unless the vendor is satisfied that it is required for purposes of national importance, as defined in Form A.

Where the quantity sold exceeds 1 std. the vendor must also obtain a certificate in Form A from the purchaser.

In cases where the amount to be obtained under paragraph 1 is insufficient, application may be made by a consumer to the Director of Timber Supplies for permission to purchase a larger quantity.

Form B is provided for this purpose, and must be rendered in duplicate.

The form will be returned to the applicant stamped with the director's orders, and if purchase is approved, the form will be retained by the vendor as his authority to sell in excess of the 1 per cent. laid down in paragraph 1, or dealt with as laid down in paragraph 4 in case of a partial supply.

It is understood that plans have been pretty well prepared for housing United States troops, during their recruiting period, in frame construction buildings, instead of tents, one of the chief reasons being the great scarcity of tenting cloth. A bill is now before Congress under which the country is to be divided into reserve areas for recruiting purposes, and if a training camp is located in each reserve area there will be 48 such camps, each with an average capacity of about 10,000 recruits.

The "Mabel Brown" Now at Sea

The accompanying illustration gives an excellent idea of the appearance of the motor-driven five-masted schooner "Mabel Brown," recently launched by the H. W. Brown Company, Ltd., Vancouver, B.C., who constructed the vessel. The "Mabel Brown" is now on its way to Sydney, Australia, with a cargo of 1,534,000 feet of lumber for the Government of New South Wales. The vessel is built throughout of British Columbia Douglas fir. She took on her load in ten days at the plant of the Victoria Lumber and Manufacturing Company, Ltd., Chemainus, B.C., and will occupy about 45 days in reaching Sydney. The freight charges on her cargo amount to $45,000. The "Mabel Brown" is the first of many similar vessels which are now being built in Canada, to take the water. She is equipped with two 160 h.p. engines of the Diesel type.

Auxiliary schooner "Mabel Brown," in Burrard Inlet, running under flying jib, outer jib, inner jib, fore-topmast, staysail, mainsail, mizzen, spanker and driver.

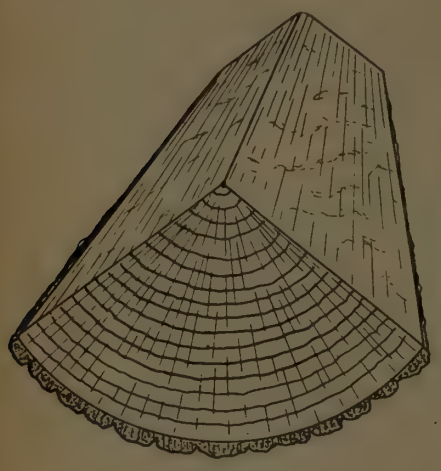
Figures by Quarter-Sawing

Hu Maxwell

Quarter-sawed lumber constitutes an important class. Its distinguishing features are sufficient to set it apart from lumber of other kinds. It is produced by sawing logs in a special manner, and is not the product of any particular species, nor does it come from any special locality, nor from trees of any specified age, size or form. The figure which distinguishes quartered lumber does not result from freak growth, as birdseye and curly figures do, but comes from normal, natural timber; but in order to bring out and expose the figure, which is a natural product of tree growth, the lumber must be sawed in a certain way, and that way is known as "quarter-sawing." The name doubtless originated from the manner of manufacture. The log was ripped down the centre and laid open in fourths, called quarters, and each quarter was sawed into boards separately, the saw cutting as nearly as possible along lines from the bark to the centre. Such boards were quarter-sawed, and the figure which passed by the same name was developed when the lumber was dressed.

It is quite generally believed by persons who have no personal knowledge of the matter that quartered lumber is necessarily oak. Such is not the case. Oak is quarter-sawed more often than any other wood to bring out the desired figure, but any commercial wood may be quarter-sawed. Sometimes it is done as a matter of convenience, without any idea of figure, and sometimes the development of figure is the object. Though oak exceeds all other woods in the quantity so sawed for the sake of figure, there are others that have the figure.

It has not been popular aways, but has been known to woodworkers for a long time, though apparently it was not purposely developed by working the wood in a particular way. If brought to view at all, it was rather by accident. A great deal of quarter-sawing is done without regard to figure, and woods are so manufactured which have no



READY FOR QUARTER-SAWING — The boards are cut from bark to heart, thereby exposing flat surface of medullary rays and forming silver grain.

MEDULLARY RAYS EXPOSED—They are the radial lines radiating from the heart and best exhibited in cross-sections of oak but visible in many other woods.

figure, the sawing being done to produce lumber of a certain grain. It should, therefore, be clearly understood that all quarter-sawing is not done to get a certain figure out of the wood, but when oak is the timber to be converted, the chief purpose is to produce figured wood.

The Basis of the Figure

The medullary ray is the basis of the figure developed by quarter-sawing. This is a natural growth of wood, present in every tree, but more conveniently examined in oak than in any other, because so abundant and so conspicuous. Inspect the end of an oak log, no matter what kind of oak it is or what the size. The rays are plainly visible in the form of bright, thin streaks radiating from its centre outward, crossing the growthrings at right angles. Sometimes a single ray continues unbroken from the centre to the bark, but that is not usual. Generally the ray, looking like a fine, colored thread, runs a few inches and disappears, while others come into view nearby and continue toward the bark.

These rays are thin sheets of wood. Only their edges appear where the log has been cut off. These thin sheets stand on edge, up and down the trunk of the tree, with one edge toward the tree's centre, the other toward the bark. They are very numerous, and constitute a considerable percentage of the wood. All woods have them. They are larger in oak than in most others, but not more numerous. In oak cross-sections their edges appear as lines several inches long, while in some other woods the lines are so small and short that they cannot be seen except with a microscope.

Such are the medullary rays that are responsible for much fine figured wood, popular for furniture and interior house finish, as well as for musical instruments.

In cutting the log on lines from bark to centre to produce boards the saw exposes the flat, bright sides of the rays. They appear as streaks, flecks, and patches when the surface is polished, and, being a little brighter in color than the rest of the wood, they stand out plainly. They constitute the figure and are responsible for the brightness and beauty of quartered oak. The exposed sides of the rays vary in size from those barely visible for smallness up to patches of several square inches. The variety in oak is great. Much depends upon choice of logs, but much also upon the manner of sawing. Patterns of figure change with the angle at which the saw cuts the ray. The sawyer's skill may make or mar the figures, provided the material for it is in the log to begin with. No skill can bring out what is not there.

Quarter-figure oak is seen oftener than that of any other wood, and oftener than of all other woods combined. The rays are broad, long, and numerous, and it is an easy matter to cut them to show large surfaces and bold patterns. So regularly do the rays occur in the best specimens of oak that they may be cut at many angles and thereby produce variety of figure that is surprising, as well as a number of standard patterns. Among the well-known figure patterns are "herringbone," "blaze," "zebra," "moonshine flake," "large flake," and "splash." These are no more than an outline of the "infinite variety" possible in the conversion of oak. The veneer cutter can take orders from the manufacturer of furniture or interior finish and can deliver kinds and varieties to meet any reasonable demand.

Great differences exist in the figures of different oaks. There are fifty-two species of the wood in the United States, and while it cannot be claimed that each species has a characteristic figure of its own, the range is wide. The flakes differ in color as well as in size and arrangement.

A pink or red tone prevails among the figures developed from oaks which grow in the Rocky Mountain region and westward, but there are exceptions. The Santa Catalina white oak (Quereus tomentella) has rays so nearly the color of the rest of the wood that scarcely any contrast is seen, the wood resembling in color the sapwood of hickory. The oaks of the western arid regions are inclined to produce dark and ugly heartwood, and the figure developed by quarter-sawing the trunks has little to recommend it. Dark color is not necessarily objectionable in figured oak, for the heartwood of southern live oak (Quereus virginiana) is quite dark and the rays are nearly black; yet the quartered wood, when polished, is decidedly beautiful. It suggests black granite. It is not apparent why the wood is not more popular than it is, but it is a fact that the southern live oak meets scarcely any demand for manufacturing purposes.

Other Than Oak

The American forests contain many species that may be quarter-sawed into figured stock, and some of the figures are delicate and beautiful, but the oaks are more important than any or all other woods. Those regularly cut for the figure they are capable of producing are so few that they may be counted on the fingers of one hand. Next after oak comes sycamore. It has broad rays, which show well in quartered stock. The surface has a checkered appearance, without much variety. There is a sameness in the figure of sycamore that would tire if oft repeated. There are three species—the Eastern, that of Arizona, and that of California. The rays are reddish in the Eastern and inclined to pink in the two Western species.

The flecked surface of quartered maple is well known; it is not a figure. There are differences in different species of maple. The lustre is less pronounced in the soft maples than in the sugar tree.

The characteristic lustre of cherry is by some believed to be due to the lining of the cells as much as to the glow of the minute medullary rays.

The extremely small, bright rays of cottonwood give it a silvery lustre when highly polished on its quartered surface. This lustre is seen to perfection in the species of cottonwood known as balm of gilead. The surface displays no details, but is flat and monotonous.

The yellow cedar of the Pacific Coast, when quartered and polished, kindles into a fine golden lustre. The individual rays are no larger than the wings of gnats, but each is a yellow scale of delicate beauty.

The California holly (Heteromelis arbutifolia), which is not holly, but belongs to the rose family, has rays of bright red, which would be quite conspicuous if the rest of the wood were not so nearly of the same color. But trunks are too small for manufacturing. That is true of a number of trees with fine wood and splendid rays. They cannot be profitably put to use, and for that reason they remain unknown, though perhaps their wood is as beautiful as our own forests produce. Small size is usually sufficient to bar them from quarter-sawing operations, though they might go to the lathe in the novelty shop.

Comparatively few of our commercial trees have rays that can be developed into figure by quarter-sawing. The entire list of softwoods,

with scarcely an exception, may be put in that class. These include the pines, cedars, firs, spruces, hemlocks, and larches. These woods have rays, thousands to the square inch usually, but they are too small to make any show.

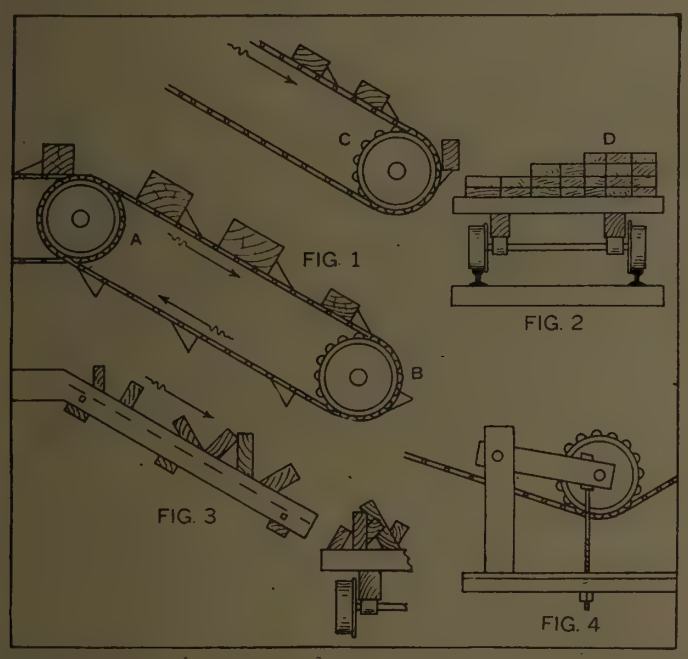
A long list of important hardwoods goes to the same class for the same reason. Their rays are either small or characterless, or both, and they have no figure to be brought out by exposing the rays. Among these woods are willow, cottonwood, ash, tupelo, gum, hickory, cherry, birch, chestnut, walnut, basswood, and yellow poplar. Some quite pleasing results may follow quarter-sawing yellow poplar and red gum, but it is lustre rather than figure that pleases in these woods.—Hardwood Record.

Lumber Slides and Chain Conveyors

By C. R. Lee

There are but few sawmills that do not have some kind of lumber slides to use in getting the lumber down from the mill to the yard tracks. These are usually greased, and the lumber, when deposited on them by the chain conveyors, goes down to the yard dump cars at great speed and in confusion. The men whose duty it is to load these cars from the slides have much difficulty in keeping out of the way of the lumber. After many accidents from this source, the manager of a certain mill decided that a change must be made which would not only protect the loader, but reduce it from a two-men job to that of one man. The sketches will explain just how this was successfully done.

Fig. 3 shows the lumber slides before the change was made. Note the confusion and general mix-up of the lumber on its downward rush, and imagine the difficulty of piling it on the dump car straight. In Fig. 1 is shown the lumber coming from the trimmer or equalizer, but instead of falling on the old slides, it falls on an extra downward chain conveyor, with the lugs turned upward to catch the boards, ease them



A change was made which not only protects the loader, but reduced this from a two-men job to that of one man.

down slowly, and drop them on the dump car straight, where only one man is needed to do the stacking. The chain conveyor appears to be running backward, owing to the lugs pointing upward, but the arrow denotes direction of travel.

Fig. 1 shows the outline of the rig complete. A is the sprocket wheel at top, and is beside the other one coming from the equalizer. B is the sprocket wheel at lower end, which is the idler.

Fig. 2 shows the lower end of conveyor and its position in regard to the dump car to be loaded. C shows sprocket wheel and arrow indicating direction of travel, while D shows the neatly-stacked lumber car, now only one man's job. When a car is loaded and ready to be pulled out, the man looking after it can stop the travel of the conveyor until another dump car is run into place, by pulling a cord. This prevents the lumber piling on the ground while changing cars, and there is ample room for a few minutes' run of boards on the waiting conveyor. The extra downward conveyor is operated by means of a friction gear.

In Fig. 4 is shown a very effective conveyor-chain tightener, which may be applied to this arrangement to prevent jumping of the chain from excessive slack, or may be applied elsewhere where dust-conveyors give trouble. It consists of an extra sprocket wheel made into a hinging frame, this frame being held down with I-bolts and the wheel running on the chain. Any amount of surplus slack may be taken up by tightening up the long I-bolts. This chain press-sprocket acts the same as the well-known press-pulley for belts, and will be found of value where such a device is needed to end chain trouble.—The Woodworker, Indianapolis.

Maritime Lumber Products Worth $12,000,000 Yearly

The lumber industry is worth approximately $12,000,000 per year to the Maritime Provinces, taking the output of 1913 as an example of an average yearly production. Included in this output is lumber and timber, laths and shingles and wood used for the manufacture of pulp. The output is principally in New Brunswick and Nova Scotia, with a small production in Prince Edward Island.

In three years Nova Scotia has contributed $254,053 worth of pulp wood to the Canadian production, and New Brunswick in the same three years had a pulp wood output valued at $926,072, the total three-year production of pulp wood for the two provinces being valued at $1,180,125 Nova Scotia had a $113,000 production in 1912, but decreased to $94,829 in 1913 and to $46,015 in 1914. New Brunswick's pulp wood production increased from $287,060 in 1912 to $343,243, and in 1914 was worth $296,769. The latter year was an increase over 1912 though a decrease from 1913.

Nova Scotia and New Brunswick combined produce lumber worth over $10,000,000 annually. The 1913 production showed Nova Scotia lumber valued at $3,669,264 and New Brunswick lumber, valued at $5,758,846. In the previous year the figures were $4,306,083 and $6,042,533 respectively. The lumber production of the two provinces was valued at $9,428,113 in 1913 and at $10,348,616 in 1912. It is not likely that the 1915 production would equal either of these two previous years, as the production has been materially reduced since the outbreak of the war.

The shingle production of the two provinces in 1913 was valued at $741,125, Nova Scotia's share being $81,744 and New Brunswick's share $659,381. Added to this might be placed the $85,000 production of Prince Edward Island. The 1913 shingle production of the Maritime Provinces showed an increase in value of more than $100,000 over the previous year.

Laths make up an important branch of the lumber industries of the Maritime Provinces, usually exceeding a value of $600,000 for the three provinces in normal years. The production in New Brunswick and Nova Scotia combined was valued at $650,511 in 1912 and at $614,129 in 1913. Millions of laths are exported from these provinces to all parts of the world in normal years, but the exports have fallen off since the outbreak of the war.

There are estimated to be approximately 14,000,000 acres of commercial timber in New Brunswick and Nova Scotia, of which 5,000,000 acres are in the latter province and 9,000,000 in the former. The timber areas of these provinces are, of course, much more limited than those of the Western provinces, they have also been much more extensively exploited. A much bigger percentage of the Maritime Province timber areas have been exploited than in any of the Western provinces, including British Columbia. The latter provides millions of acres of unexploited timber lands in the north, while the Maritime Provinces have very few areas which have not already been touched by the lumber industries.

The wood used in the manufacture of pulp in these provinces shows the following figures:

	Wood used.		Pulp produced.	
Province.	Cords.	Value.	Tons.	Year.
New Brunswick	52,941	$287,060	29,525	1912
Do.	53,121	342,243	29,911	1913
Do.	49,339	296,769	26,829	1914
Nova Scotia	26,176	113,209	26,176	1912
Do.	20,562	94,829	20,562	1913
Do.	10,777	46,015	10,777	1914

While these figures show a reduction for both provinces in 1913, it is not unlikely that the statistics for 1915 and 1916 will show material increases. There has been an increased demand for Canadian pulp wood, which has resulted in an increased production in all the provinces producing this product. This is practically the only branch of the wood and timber industry in which the war has created an increased demand, so far as Canada is concerned.

The number of industries engaged in producing pulp wood is fairly limited, there being only 49 such firms reporting for all Canada in the statistics of 1914, of which 23 were in Quebec, 15 in Ontario, 4 in New Brunswick, 5 in Nova Scotia, and 2 in British Columbia. Prior to the outbreak of the war the pulp industry in the Maritime Provinces has shown a tendency to decline, but the industry has picked up considerably during the past two years.

While the 1916 total production of forest products for the Maritime Provinces will not be exceedingly large, it will not be forgotten that in normal years the output in all products, including timber, laths, shingles, and pulp wood exceeds a value of $12,000,000 annually. There have been years when the output has reached the $15,000,000 mark, but the twelve million production is about the average, allowing for good and bad years.—Journal of Commerce.

Why British Columbia Shingle Prices Have Advanced

An industry situated a long distance from the centre in which its products are consumed is often confronted by circumstances affecting the manufacture of its goods which are not always taken into consideration by the customer.

With no reason apparent to a great man other than the acute car shortage, with its attendant embargoes, shingles have advanced steadily in price during the last six months.

For the benefit of all concerned it should be advantageous at this time to set down some of the difficulties and disadvantages under which the shingle industry in British Columbia is now operating.

To begin with: Canada, with a total population but little greater than that of New York City, has furnished an army larger than any Napoleon ever commanded. The demand for men trained in any and all branches of the lumber industry has been greater than for any other class. Whole forestry battalions have been and still are being recruited. This has caused an enormous shortage in the labor supply, with the result that ordinary labor, which could be had for $1.50 a day less than a year ago, now commands $3.00, which employers are forced to pay. Skilled labor has advanced in proportion.

Again, owing to the shortage of labor and the limited supplies of wire rope—a requisite in logging operations the visible supply of which England has commandeered for the manufacture of submarine nets—cedar logs are very scarce and have advanced in price about 100 per cent. during the last year. The f.o.b. mill price of manufactured shingles during the last months of 1915 was actually less than the present cost of the cedar from which they are made. This advance is justified owing to the increased cost of logging operations. Labor, tools, groceries and other requisites of a logging camp, have increased in cost over 100 per cent. Loggers claim that they are losing money by boarding their men at $1.00 per day, whereas $3.00 per week gave them leeway a year and a half ago. These facts have prevented many small operators from entering the woods this year, the consequence being seen in a reduced output of logs, which again raises their commercial value.

The actual cost of manufacturing shingles has admittedly been increased enormously. The following list of some of the items figuring in this cost, comparing 1915 with 1917 prices, will show to what extent the operators are handicapped:

	1915	1917
Logs	$ 8.50 per M. ft.	$15.00 per M. ft.
Saws	27.50 each	55.00 each
Band irons	.06 per lb.	.12½ per lb.
Nails	3.75 per keg.	7.40 per keg
Ordinary labor	1.50 per day	3.00 per day
Wire rope	.28 per foot	.68 per foot
Groceries	have advanced over 100%	
Emery wheels	2.60 each	5.07 each

The car shortage has resulted in greatly increased costs to all shingle manufacturers. Mills have been forced to cut their storage capacity and then shut down for two or three weeks at a time because they could not get cars to load. Such a condition means the tying up of a $15,000 to $40,000 stock, the interest alone on which is a big item. British Columbia has a very damp climate, so that dry shingles stored for a period of two or three weeks absorb a great deal of moisture, which naturally increases their weight and consequently the amount of freight on each shipment. Then again, owing to the labor shortage the mill crew must be kept intact during periods while the plant is not in operation, which means greatly increased overhead costs. Mills, therefore, that are forced to shut down either for want of logs or cars—and about 40 per cent. of the plants are now in that position—are under very heavy expense.

Final Figures on 1916 Lumber Production in United States

A total computed lumber cut for the United States in 1916 of 39,807,251,000 board feet is announced by the Forest Service. This figure is based on reports received up to April 15, from 17,201 sawmills out of the 30,081 believed to have operated last year. It is estimated that the actual cut was slightly in excess of forty billion feet. An earlier estimate, based on partial reports, indicated a total output of forty-one and three-quarter billion feet. The figures now given are regarded as practically final.

The State of Washington was again the largest producer, with a lumber cut of 4,492,997,000 feet; Louisiana was second, with 4,200,000,000 feet, and Mississippi third, with 2,730,000,000 feet.

Southern yellow pine, with a total of 14,975,000,000 feet, forms 37.6 per cent. of the entire cut. Douglas fir, its nearest competitor, is credited with 5,416,000,000, while oak, with a cut of 3,500,000,000, is third.

Production in 1916 was, it is stated, hampered by a general lack of shipping facilities and local unfavorable weather conditions, which tended toward curtailment. Among the smaller mills the scarcity of labor and the consequent higher wages paid resulted in a smaller output than would ordinarily be the case in a year of good demand.

The number of mills operating and reporting in 1916 was greater than for the preceding year. These figures, however, as well as the trade conditions, were more nearly normal than in any year since 1913.

The reported cut and estimated cut for thirteen years are given below:

Year.	Reported cut of lumber. M. feet.	No. of active mills reporting.	Estimated total cut of lumber M. feet.
1904	34,135,139	19,127	43,000,000
1905	30,502,961	11,666	43,500,000
1906	37,550,736	22,398	46,000,000
1907	40,256,154	28,850	46,000,000
1908	33,224,369	31,231	42,000,000
1909	44,509,761	42,041	44,509,761
1910	40,018,282	31,934	44,500,000
1911	37,003,207	28,107	43,000,000
1912	39,158,414	29,648	45,000,000
1913	38,387,009	21,668	44,000,000
1914	37,346,023	27,506	40,500,000
1915	30,985,473	16,815	38,000,000
1916	34,369,137	17,201	40,000,000

Suggestions for Logging Engineers

The logging engineer has been passing through what is perhaps the most difficult stage in the development of his profession. This might be termed the pioneering period, during which the engineer has to show that he is an economic necessity and that he has a definite place in the logging industry.

He has had to learn much that could not be taught him in the schools. In fact, even, now the schools being developed in response to the need of special training for this sort of work are just getting well settled as to what they should teach and how they should teach it.

As a result of the newness of the logging engineer to the industry, he not only has to learn what is expected of him and how best to accomplish it, but must show his employer how to get the greatest benefit from the special training he has undergone.

This most natural state of affairs has had several obvious results. In many cases—yes, make it stronger, and say in most cases—the employer has found that the engineer fresh from the school has to continue his education in the more practical conditions of actual operation. This has been a very expensive process in many instances, and the logger, being pretty much of an individualist, has often drawn hasty conclusions from his experience with untried engineers. He is apt to condemn all of them from his own limited experience and to be very slow in entrusting them with a wider application of their special training. As a result of this we have the engineer spending much of his time doing work that an untrained man could do just as well. The greater amount of his time spent in such work the less value he is to the company.

As the schools develop their training from year to year they keep turning out better men. These men also have the benefit of the experience of others who have preceded them. They feel they should be allowed to further develop their usefulness, for as their usefulness grows so will their opportunities.

In other words, it is not up to the logging engineer to complain of present conditions and opportunities, but to get busy and help widen the scope of his work. The more use he can make of his training the more valuable he will be to his employers.

This article is designed to offer a few suggestions along the lines he can work to accomplish this as opportunity offers or whenever he can bring about the opportunity.

Value of Cost Accounting

As a base on which he must build any sound conclusions as to improvements in methods or machinery he must work with every available means for correct, standardized, cost accounting methods. Without accurate cost data he is handicapped from the start. He needs not only the cost figures for his own operation standardized, but also those from other operations, from which he can make comparisons and draw conclusions as to the efficiency of his own methods.

For instance, there are certain items that should go to make a yarding cost. These would apply just as much to one operation as to another, were proper accounting methods followed. As it is, a bare comparison of yarding costs tells one nothing of value unless he can find out definitely how such costs are arrived at in different cases. By "cost of yarding" one company refers to the cost of labor alone; another includes the proper proportion of cost in raising spar trees for their high lead yarding and moving donkeys, yet keeps the entire wire rope account separate and unsegregated as to use for loading, chokers, guys, etc.; a third company may include overhead expense, and so on. There are nearly as many methods of keeping cost accounts as there are operating companies. Is there any good reason why we

should not get together at some future logging congress and have a committee of experts at least to recommend a standardized system of cost accounting for logging companies? Even if only adopted by a few companies, it would help in large measure to standardize the industry and enable operators to draw more definite conclusions as to the value of different machinery and methods under varying conditions.

As an illustration of conditions which would show the practical value of accurate cost records:

Suppose we have an outfit operating in different types of timber and varying ground conditions. Would it not be worth while to know which "sides" were returning the greatest net profit Gradually as data collected we could come to know definitely the best method for any given condition. In case of curtailment we would know which sides were the best to shut down under various market conditions; which sides and how many of them would serve to carry the overhead.

Buying a Tract of Timber

Suppose we wanted to buy an adjoining tract of timber of a certain type. If we knew just what it had cost us in the past to log timber of that type we could tell more closely what we could afford to pay for that timber. Such figures would be of great value in letting logging contracts. In the past these matters have been decided largely on guesswork based on experience. Many times the uncertainty of such a basis for contract and stumpage prices has been demonstrated by losses out of all proportion to the real risks that had to be incurred.

These same arguments would apply in a greater or less degree to the other items going to make up a "cost of logging," as bucking, falling, loading, etc.

Other lines along which the logging engineer is especially fitted to work are:

1. The accurate determination of the loss incurred in leaving good logs in the woods. This would include stumpage value plus cost of bucking and falling. A loss of $2.15 per M., taking stumpage at $1.50 and bucking and falling at 65 cents, soon runs into money. Often when the usual excuse is given that such logs are too scattered or in too long a corner to yard profitably, you can perhaps show that the extra cost of getting these logs out of the woods would not exceed $1 per M., a clear saving of $1.15 per M.

This would also apply in a less degree to small, scattered bunches of timber. At present we usually guess at whether we can handle these odds and ends. The logging engineer should be able to show definitely the best way to meet such problems.

2. In order to find accurately how closely the timber is being utilized a check survey over selected areas from time to time would be of value. The engineer should be able to say whether there was enough material left on the ground, such as shingle bolts or fence posts, etc., to justify removing them. Also he should investigate market conditions and cost of handling such by-products.

Locomotive Operating Costs

3. The operating cost per mile for each locomotive should be worked out under various track conditions. In many cases it might be found that the extra expense of sending a locomotive to handle light freight, give first aid and bring in injured men, haul small crews of men, etc., could be largely saved by the use of a gasoline speeder. In case an engine had to be used, we should know which was the cheapest to operate.

We should know what it costs to haul logs over the various adverse grades. This information would enable us to figure at just what point it would be more profitable to use a swing donkey or perhaps build some pole road. We would know just what we could afford to spend on railroad construction in relation to the amount of timber that was to come out over the road.

4. We should make a study of the relation of ballast and proper drainage of roadbeds to the maintenance cost. There is a happy medium in such matters, and it should be definitely worked out for logging roads.

In this connection we should be able to show the dollar and cents value of having the grades completed from six months to a year ahead of the logging. We must consider whether the cheapened maintenance plus ability to get into new timber or a certain class of timber to meet market conditions quickly will more than balance the interest on the money invested in grading. The cheapened cost of grading in favorable weather also enters into this phase of logging preparedness.

5. In many cases the work of our steel gangs can be better systematized. We should show exact cost of taking up and laying the various weights of rail and figure on what could be saved by using a specially constructed, low-bodied steel car. Whether there is enough steel work to justify the expense of such a car.

Comparison of Hewn and Sawn Timbers

6. A relative comparison of the cost of hewn and nawed timber in bridges would be of value to many operators. The question of using bolts instead of spikes in bridges which are more or less temporary, and where the timbers and ties may be used again, as on branch lines, would be interesting.

The value and cost of preservatives and fire-resisting paint for main-line bridges is a field for study.

7. The engineer should spot out his yarding areas in co-operation with the logging foreman. In all things he must co-operate and receive co-operation from the logger in charge of operations if he expects to be successful. The logger can probably teach him as much or more than he can teach the logger.

8. One of the increasingly important problems to be met is that of reducing the hiring and firing of men. In so far as I know, no one in the logging business has ever attempted to figure just what it is costing the industry to break in a new crew every month or so. We must find means to make the men steadier and eventually to pay them for the work they accomplish rather than so much per day. It is a big subject, and cannot be discussed here, but it is a good thing to keep in mind in connection with logging problems.

Yearly Reports and Maps

9. Yearly reports and maps should include the following:

A. A map to show yearly cuttings and railroads: (a) Comparison with cruise; (b) timber in odd forties; (c) logs in woods at end of year; (d) average stand per acre to compare with operating cost.

B. Railroads: (a) Fully equipped and ballasted; (b) steel laid, no ballast; (d) roads graded; (e) roads located; (f) preliminary surveys.

C. Totals: (a) Amount and cost of track laid during year; (b) amount and cost of track taken up during year; (c) maintenance cost, including spurs and main lines; (c) construction cost, including spurs and main lines; (e) engineering cost, including main line per mile, spurs per mile, and general expense miscellaneous work and outline of same; (f) budget for coming year.

D. Maps of spurs for foremen's use as necessary.

E. Map to show standing timber for assessor.

10. In this map work and in making topographic maps the engineer should regulate the expense by the use to which the maps are to be put. The topographic maps will cost from $50 to $600 per section, depending on the accuracy required. It is just as much a mistake to try for too much accuracy in some cases as to have too little.

While the above outline cannot cover the entire field nor fit all situations by any means, it is hoped that it may be of use as suggesting work fitted to the training of a logging engineer and in bringing out further suggestions along similar lines from others with similar experience.

Amendments Proposed to B.C. License Regulations

A bill entitled "An act to amend the 'Forest Act'" has been introduced in the British Columbia Legislature by Hon. T. D. Patullo, Minister of Lands. The act contains a number of amendments to the existing act, which include regulations regarding the sale of crown timber for the manufacture of wood pulp. One clause states that in connection with such sales the Minister may require proof that the intending purchaser has spent not less than $350,000 upon the erection of a wood pulp and paper mill to be operated exclusively in connection with the limits under consideration; or, alternately, may require the intending purchaser to furnish a bond of $50,000 and other suitable guarantees for the expenditure of not less than $350,000 for the erection of such mill, of which not lss than $100,000 shall be expended during each of the first two years of the license. Pulp licenses shall be limited by the output capacity of such mill, and shall not comprise at any one time more than thirty years' supply of pulpwood for the said mill.

United States Freight Rate Advances Postponed to July 1

The effective date of the proposed 15 per cent. freight rate increase on United States railways has been postponed from June 1 until July 1 in a tentative order issued by the Interstate Commerce Commission. The order permits the railways to file supplements providing for increases on the percentage basis, thus saving the time, expenses, and labor that would be involved in filing under the regular rules of the commission. The commission announces that it has not decided about the advance, but that the rates involved will be subject to protest, suspension, complaint, investigation, and correction, as provided for by law. It is expected that the commission will soon set dates for hearings, at which shippers, carriers, and other interests concerned can be heard fully.

The California White & Sugar Pine Manufacturers' Association has established a school for mill employees, in which they are given instruction in the proper grading and manufacturing of lumber. Tuition of this kind might increase the efficiency of some of the Hindu graders employed in B. C. mills, but would probably hasten the day when they would form a syndicate to compete with their present employers.

Australia's Douglas Fir Timber Import

Effects of Customs Tariffs on Imports from Canada—Comparative Prices in Australia and British Columbia—Canadians Fail to Appreciate Value of Their Exports

By H. R. MacMillan*

The necessity of importing a large proportion of Australia's lumber requirements is generally admitted. In the face of evidence to the effect that, while local production increased from 1903 to 1913 from 371,000,000 to 683,000,000, imports increased in the same time from 178,000,000 to 432,000,000, and exports remained almost constant at 114,000,000 in 1903 and 135,000,000 in 1913; even the timber owners and sawmill proprietors recognize the dependence of the country on imported timber. The feeling of the country is, however, that the timber should be imported in rough form and in as large sizes as possible, in order that the work of manufacturing to fit the final use may be performed in Australia. To accomplish this end the customs duties, which already encouraged the importation of larger sizes, were proportionately further increased on the smaller dimensions in 1908 and again in 1914.

This customs tariff against the three chief sources of rough lumber—United States, Japan, and Canada—now stands as follows:

	Per thousand.
Dressed lumber	$9.60
Rough lumber less than 2½ in. x 7¼ in.	8.40
Rough lumber, 2½ in. x 7½ in. to 6 in. x 12 in.	7.20
Rough lumber, 6 in. x 12 in. and over	2.40

New Zealand enjoys a tariff preference over Canada amounting to $6 per thousand on rough boards, or about 60 per cent. of the Canadian f.a.s. value.

A tariff of this nature is the development of the past decade in Australia. During this time the amount of duty on dressed as compared with rough timber has been constantly increased, yet the proportion of rough lumber imported declined from 86 per cent. in 1903 to 81.9 per cent. in 1913.

The provision in the tariff for the increasing of the proportion of timber imported in large sizes han been more successful. In 1903 only 33.8 per cent. of the rough lumber entering Australia was cut in dimensions 6 inches by 12 inches and greater. The proportion of this class of timber had risen by 1913 to 44.9 per cent. Since 1913, the latest normal year of trade, the duty on the smaller dimensions has been still further proportionately increased, with the result that a still greater importation may hereafter be expected of 6 inch by 12 inch and up.

To these changes in tariff are due the gradual drift of American cargo specifications away from that of ten years ago, in which small sizes predominated, to that of the present, which contain a larger proportion of larger sizes. Melbourne cargoes have always contained more timbers and larger sizes than Sydney cargoes, because before the union of the states Melbourne served a tariff-protected territory, in which an effort was being made, by use of customs duties, to build up a local resawing industry, and Sydney served a free-trade territory. The same tariff now applies, of course, to both ports, but the influence of the old trade customs persists; and, while the difference between Sydney and Melbourne specifications is lessening, it still exists.

Influence of Tariff

Timber-supplying countries will naturally be forced to cut their rough lumber in those sizes dictated by the Australian tariff. The influence of this tariff on trade during the past ten years is, therefore, important, as indicating the trend of specifications during future years.

Size imported.	P.C.—1903,	P.C.—1913.
Less than 6 in. x 12 in.	66.2	55.1
6 in. x 12 in. and greater	33.8	44.9

The proportion of material over 6 inches by 12 inches in an Australian rough lumber cargo, which was only one-third in 1903, has jumped 11 per cent. by 1913. Since 1913 another duty discriminating at an additional rate of $1.20 per thousand against sizes under 6 inches by 12 inches has gone into effect. The result is that it may be expected over half the rough lumber imported into Australia hereafter will be in sizes equal in cross-section to 6 inches by 12 inches.

This increase of duty on small dimensions of rough lumber is a direct encouragement of the use of Douglas fir, as this is the only timber available in quantity for export from which such large sizes may be cut in quantity without greatly increasing the price. The other important producers of rough lumber for the Australian market, New Zealand, Norway, Sweden, and Japan find it difficult to produce 6 in. by 12 in. timbers in the lengths demanded.

Even in short lengths these countries cannot produce 6 in. by 12 in. without sending the whole log, against which the Australian merchant objects because of the proportion of common inevitably produced. Buyers have even been heard to complain of the amount of common produced in resawing Douglas fir 6 in. by 12 in. The buyer will inevitably endeavor to discover the exporting mills (if there be any) prepared to ship 6 in. by 12 in. free from common when resawn into inch boards.

A comparison of the trade of 1913 with that of 1903 shows that Australia is slowly adjusting herself to new sources of supply of rough lumber, as well as in other timber requirements. This would be noticeable were it not for the endeavor being made by the importing country, as pointed out above, to restrict imports to large timber, an effort which in practice restricts the market for one-half of the total imports to Canada and the United States.

Europe is decreasing in importance as a source of rough lumber. European supplies, which were 6 per cent. of the total in 1903, were only 3.6 per cent. in 1913. Japan, which supplied nothing in 1903, had begun parcel shipments in 1913, and supplied over half of 1 per cent. The tide of trade which has turned toward North America as a source of rough lumber for Australia, has not done so to Canada's advantage. While the proportion of rough lumber supply won by the United States has remained about constant at 86 per cent, Canada's share has been cut in half, falling from 7.8 per cent. to 4 per cent. in 1913 and even lower since that date.

The chief species of rough lumber now imported into Australia are given in the following table:

Until the total imports of timber into Australia increase, the only means of extending the use of rough Douglas fir lumber, which now constitutes 70 per cent. of the total, will be at the expense of one of the more important species now comprising 30 per cent. of the purchases of rough lumber from abroad.

The list of rough lumber imported into Australia does not include Southern pine, yellow or pitch-pine, the timber which gives Douglas fir the strongest competition in Europe, Africa, and South America. Australia uses trifling quantities of pitch-pine, but usually specifies Douglas fir in all situations where architects, engineers, and builders in a similar climate in South Africa, and in Europe also, regard pitch-pine as necessary at any price. From this fact may be judged the possibilities for the extension of the use of Douglas fir in those regions now importing annually 1,400,000,000 feet of pitch-pine.

Uses of Rough Douglas Fir

The chief uses of the rough Douglas fir imported to Australia are:

	Per cent.
General building purposes	75
Mining	9
Structural timbers in irrigation, bridging, railroads, heavy construction	8
Joinery	5
Wood-using industries	3

The only Canadian wood yet used to any extent in Australia for building purposes is Douglas fir. It finds its chief use for this purpose in New South Wales, Victoria, and South Australia. In the other states the native timber, though slightly declining, still presents such keen competition that fir is used only in longer lengths of joists, and for rafters where native woods would be likely to warp or sag from their own weight.

The use of fir in buildings, even in the states where it is most used, is confined to upper floor joists, studding, plates, rafters, and roof battens. There is no sheathing in an Australian house to provide use for common grades.

Even in the states where fir is most used native woods are used for ground floor joists because of a fear that fir would rot. Native woods are rarely used for upper joists, but are used for studding frequently, especially by speculative builders.

No other imported wood competes with fir for building purposes. Hemlock and spruce, in common grades, would, however, be quite as acceptable.

The most striking feature of the fir used for building in Australia is that a large proportion of it is of a grade superior to what would be used for similar purposes in Canada. This is true both of the timber imported in the sizes in which it is finally used and of the timber resawn to order from 6 in. by 12 in. and other dimensions carried in stock. Undoubtedly fully one-half of the softwoods used for building purposes in Australia would give quite as good service if common Douglas fir, hemlock, or spruce were used.

The Australian market is quite different in this respect from any

* Reproduced from Report to Dominion Department of Trade and Commerce.

in Europe or Africa, countries which now import by far the larger proportion of their requirements in common grades of spruce and pine from Scandinavia and the Baltic.

There are large areas in interior and North Australia, at present sparsely populated—in Queensland particularly, where Douglas fir or spruce is not used for building purposes because of white ants. Should Western cedar prove immune to white ant attacks it would be a valuable wood for this region, the more so because of its extremely light weight, which would give it an advantage in railroad freight cost. Cedar merchantable would be very suitable for studding in the bandings of the tropical regions.

Douglas fir is the wood used chiefly for concrete form stock, scaffolding and bracing in erecting important buildings. Here, as elsewhere, the grade is above requirement. The merchant who receives the order, as a rule, has not enough of a form stock near common grade on hand to fill it, but completes with whatever he may have in his yard, resawing it to order. Where an unusually good cargo has been received recently splendid high-grade timber goes into this low-grade temporary use.

Rough Douglas fir for construction purposes is sold at the same price per thousand feet as all sizes from 2 in. by 2 in. to 12 in. by 12 in., any length up to 30 feet. An additional charge of $2.40 per thousand feet for all the above specifications is made for lengths 31 feet to 40 feet, inclusive.

Each additional inch over 12 inches up to 16 inches wide is charged extra at the rate of $1.20 per thousand feet.

Even if Pacific Coast manufacturers do not appreciate the inherent value in a timber that will produce 12 in. by 12 in. sticks, 40 ft. to 80 ft. long, this value is recognized and demanded by the merchants in Australia.

Prices of Different Sized Timbers

Consider the following comparative statement:

Length of timber.	Extra demanded by G. list, per M. ft.	Base price, Sydney, January, 1915, per M. ft.	Extra demanded above base in Sydney, January, 1915, per M. ft.
41 to 50 feet	$3.00	$46.80	$13.20
51 to 60 feet	6.00	.....	15.60
61 to 70 feet	9.00	.....	20.40
71 to 80 feet	13.00	.....	25.20

Long timbers are only purchased where they are required and where no substitute is available. A much higher price may be properly asked for such a timber than for the smaller dimension that can be cut from any tree. This extra price should, however, go to the owner of the tree and not to a dealer in the produce. The extra value of the long timber is in the stumpage and manufacture, and not in the handling.

The price at which timbers larger than 12 in. by 12 in. are sold to the public should be illuminating to the manufacturers:

Size.	Extra above G. list base, received by manufacturer.	Sydney base at January, 1915.	Extra above Sydney base rec'd by Sydney distributor, Jan., 1915.
31 to 40 feet long	....	$46.80	.....
14 in. x 14 in.	$1.00	.....	$2.40
16 in. x 16 in.	2.00	.....	5.00
18 in. x 18 in.	3.00	.....	15.00
20 in. x 20 in.	4.00	.....	20.00

The manner in which extras are charged for select and clear in Sydney is worthy of attention:

	Extra above base of G. list.	Base in Sydney.	Extra above base in Sydney.
Select or slash grain, 1 in. x 6 in.	$6.00	$46.80	$6.00
Clear, 1 in. x 6 in.	7.30	.....	12.00

The Sydney merchant makes the same extra charge for select as is made by the shipper, but in picking over and resawing his merchantable cargo he secures a large quantity of select at the price of merchantable. Although this principle applies equally to clears, he finds it possible to charge twice as much extra for clears as he pays to the producer.

The moral in this for the lumber manufacturers exporting to Australia is that they do not properly appreciate the value of large timbers and high grades. The distributor realizes upon the possibilities of our timber asset and the manufacturer does not.

Japan is likely to become a large purchaser of British Columbia sulphite in the near future. A huge plant for the manufacture of paper and paper products is being erected at Tokyo with the approval and assistance of the Japanese Government, and it is planned to import the raw material from this province.

Present and Future Wood Products

A Survey of Production and Use—Waste Problems of Great Importance—Paper Industry Consumption

"Present and possible products from Canadian woods," was the subject of a paper by Dr. John S. Bates, head of the Forest Products Laboratories of Canada, Montreal, at a meeting of the Canadian Society of Civil Engineers, Montreal, on April 19. Dr Bates gave a large number of statistics showing the enormous extent of the lumber industry, pointing out that over 94 per cent. of the timber cut in Canada was made up of soft woods which fortunately were the most important woods needed in our industries, and also best suited for growth in the Canadian climate. By means of a diagram of forest products from Canadian tree species, Dr. Bates proceeded to indicate the many uses of lumber as such, the products used in the pulp and paper industry, in distillation industries, and in minor industries.

By far the most important and extensive utilization of wood consisted, he said, in the manufacture of lumber and other products by mechanical processes. Under the heading of "wood used in the rough," firewood took first place and accounted for about 35 per cent. of the total wood cut. The annual consumption of railway cross ties in Canada was about 20,000,000. Half of these were used for renewals, showing the tremendous wastage which was mainly due to decay rather than mechanical wear. Only about 7 per cent. of the ties received preservative treatment. Hardwoods such as birch and maple were now coming into use, as creosote treatment successfully overcame the tendency to rapid decay, and the ties had the advantage of high mechanical strength. The annual consumption of round mine timber was about 53,000,000 lineal feet, while the mines consumed sawn timber to the extent of 23,000,000 feet board measure. The demand for poles had fallen off in recent years, largely on account of a decrease in telephone line construction.

With regard to lumber, 25 kinds of wood were reported, representing about fifty distinct species. Hardwoods were of minor importance, birch being the leading species in point of quantity available.

The Canadian species in order of merit and availability for structural timber were Douglas fir, western hemlock, eastern hemlock, western yellow pine, western larch, red pine, and eastern larch. Under the head of rough manufactured products Canada produced over three billion shingles, more than one-half of which were made in British Columbia from western red cedar.

About 15 per cent. of the total wood cut was accounted for by specially manufactured products. An economic principle underlying the proper use of wood was that each species had a legitimate field of usefulness within which it should be employed. Custom, prejudice, and lack of information frequently prevented the use of a species for some purpose for which it was naturally adapted. A large amount of accurate data still remained to be established, and there was a wide field for technical research in determining the mechanical, physical and chemical characteristics of Canadian wood.

Referring to the by-products of the lumber industry, Dr. Bates said that they constituted an enormous amount of wood material which for the most part was going to waste. It was estimated that the logging waste which was left in the woods represented about 25 per cent. of the original tree. Sawmill waste amounted to about 40 per cent. of the original tree, so that the finished lumber on the average represented from 30 to 35 per cent. of the tree. New developments in the utilization of wood waste were being constantly made, but in general the possibilities were limited. Dr. Bates outlined some of the purposes to which this waste wood was being put, and added that experiments along certain lines promised success in further utilizing the waste.

A considerable portion of the address was devoted to a discussion of the development of the pulp and paper industry, with brief descriptions of the more important processes. Canada, he remarked, was destined to become perhaps the leading country in the world in the manufacture of pulp and paper products from wood because of our extensive natural resources of water power and suitable tree species. Canada now has a total of about 90 mills, many of which are large and of modern design. The soft woods were the most important species for paper making, spruce and balsam fir accounting for the bulk of the wood used.

With regard to distillation industries, the destructive distillation of hardwoods was the only important distillation industry in Canada where wood was used as raw material. The Canadian plants consumed over 500 cords of wood per way. Maple, beech and birch were the main species used, although oak, hickory and other hardwoods were suitable if they could be obtained.

The consideration of minor industries covered dyes, potash, turpentine, resin, etc.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Cheese Box Veneer

Wanted a quantity of cheese box veneer and heading, standard stock. C. B. Moses, Carp, Ont. 8-11

Maple Wanted

Wanted a few car loads of hard maple, quote price on dry, green stock. Ontario Spring Bed & Mattress Co., Ltd., London, Ont. 10-10

Spruce Wanted

1 in., 1¼ in., 1½ in. and 2 in. Clear Spruce, either dry or green. State how much you can furnish, with lowest price.

E. C. Bradley Lumber Co.,
909 Gerke Building,
10-10 Cincinnati, Ohio.

Spruce Wanted

We want a quantity of strictly clear spruce – can use inch and thicker—four inch and wider, ten foot and longer. Will take stock for immediate shipment or for future delivery.

What can you offer,

Address S. F., care of Canada Lumberman, Toronto, Ont. 9-t.f.

For Sale-Lumber

Lumber For Sale

300,000 ft. B.M. 1 x 4 and up Clear and No. 1 Spruce.

400,000 ft. B.M. 2 x 4 to 2 x 10 Spruce. Piled widths and lengths separate.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale-Machinery

Saw Mill Machinery For Sale

1 100-h.p. boiler with Dutch oven, latest type, and all fixtures; 1 14 x 14 Robb Engine, latest type, with all fixtures; 1 sawmill frame with rope feed; 1 edger, self-feed; 1 lath machine with bolter, etc.; 1 planer and matcher; 1 re-saw, together with a quantity of saws, shafting, belting, live rollers, etc. All of the above, in A-1 condition, will be sold at a bargain, and can be seen at any time by appointment. H. W. Woods, Welsford, N.B. 7-10

For Sale

Complete set hoop machinery. Box 17, Bothwell, Ont. 10-10

Shingle Mill For Sale

One new upright shingle mill with edger for sale: Apply to A. Duquette, Papineauville, P.Q. 8-11

Portable Mill

Portable sawmill for sale, in first-class condition, with double edger. Apply Box 552, Canada Lumberman, Toronto, Ont. 7-10

Machinery For Sale

No. 94 Berlin Matcher, 15 in.
McGregor-Gourlay "Y.M." Matcher, 24 in.
Mershon 46 in. Ideal Band Resaw.
Power Feed Rip Saws (2).
Double Spindle Shaper (McG-G.)
Nailing Machine.
Box Board Matcher.

Write Box 576, Canada Lumberman, Toronto, Ont. 10-10

For Sale

18 4-Wheel Trucks, Standard Gauge, 24-in. wheels.
1 Log Loader.
1 Double Drum Beatty Hoisting Engine, 7 x 12.

JOHN I. GARTSHORE,
58 Front Street West,
9-12 Toronto, Ont.

List of Sawmill Machinery For Sale

Item No. 1—One Union Iron Works Upright Resaw, eight foot wheels with drive pulleys.

Item No. 2—One improved Morston & Co. Horizontal Slab Resaw, 5 ft. wheels for 8 in. Saws. These Mills were used only three years.

Item No. 3—One Jump Cylinder, 10 x 12. Giddings & Lewis make.

Item No. 4—Three 6 x 8 Jump Cylinders.

Item No. 5—One Tug Smoke Stack, Size 34 in. x 23 ft. x 10 gauge Iron.

Item No. 6—One Three Saw Edger. Waterous make.

Item No. 7—One Smoke Stack—26 in. x 73 ft., with 7 ft. Spark Catcher. 10 gauge Iron, 40 ft. 12 gauge to top.

Item No. 8—One Timber Surfacer Cylinder Head—30 in. with Side Heads, 14 in. Shop No. 8461. Cut No. 202. McGregor & Gourlay.

Item No. 9—One Picket Machine. McKechnie and Bertram make.

All Machines in good working order.

Item No. 10—One Boiler, 60 x 14—54—3½ in. tubes, 70 lb. pressure.

Item No. 11—One Boiler, 60 x 12—54—3½ in. tubes. 60 lb. Pressure.

These boilers have been inspected by the Ontario Government, using 5 as a figure of safety.

The Pigeon River Lumber Company, Limited,
9-12 Port Arthur, Ont.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

BAND SAWYER wants position. Right or left hand. Single or double cut. First-class references. Box 2, Canada Lumberman, 42 St. Sacrement St., Montreal. 7-10

LICENSED ENGINEER wants position on locomotive or donkey engine for logging or loading operations. Long experience. Now employed in B. C. but wants position in Ontario or Quebec. Box 561, Canada Lumberman, Toronto, Ont. 8-11

FIRST CLASS BAND SAWYER would like position with some Canadian firm. Am 31 years old, single, had 5 years' experience and will guarantee satisfaction or no pay. Prefer right hand rig. References. Address O. D. Granum, Amery, Wis. 8-10

EXPERIENCED BOOKKEEPER and lumber office man wishes position. Capable of superintending operation of saw and planing mills. Box 579, Canada Lumberman, Toronto, Ont. 10-10

SITUATION WANTED — Married man, over twenty years' experience in wholesale and retail lumber business, wishes position of trust or manager for good firm. Box 571, Canada Lumberman, Toronto, Ont. 9-10

LUMBER GRADER AND SHIPPER, three years' experience grading and running mill, summer and winter. Single (25), French and English. Will go anywhere. Mention wages and position when writing. P. O. Box 106, L'Orignal, Ont. 10-10

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

OFFICE POSITION WANTED at Lumber Company's plant, by lady with 3½ years practical experience. Have had lumber office practice in Bookkeeping, Pay Rolls, etc.; Cashier. Anywhere east or northeast of Montreal. "Lumber," Box 555, Canada Lumberman, Toronto, Ont. 10-10

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

POSITION WANTED by Hardwood Lumber Inspector for June 1st. Twelve years' experience on road, Quebec and Ontario. Satisfaction guaranteed. Apply Box 573, Canada Lumberman, Toronto, Ont. 10-11

Business Chances

For Sale

Half interest in, or all of, the white, red, and jack pine, spruce, and cedar timber (estimated 20 million) on well watered Township. Can be operated two years without sleigh haul. Apply Howard Gover, Coldwater, Ont. 8-11

Sawmill To Rent

Will rent water power sawmill with grist mill in connection therewith. Profits average over $5,000 a year for the last ten years. $3,000 will finance.

I. E. WELDON, Solicitor,
8-11 Lindsay, Ont.

Jobbers Wanted

We wish to let several contracts to take out logs on Berth No. 6, being broken front lying between the Magnetawan and French Rivers. This berth is all convenient to Canadian Northern Railway.

John Harrison & Sons Company, Limited,
Saw and Planing Mills,
9-t.f. Owen Sound, Ont.

Mill Plant and Limits For Sale

43 Miles Limits on 31 Mile Lake, Gatineau Valley, containing Basswood, Spruce, Fir, Pine, Cedar, Birch, Maple and Pulpwood.

New Waterous 8 ft. Improved Double Cut Band Mill complete. Steam Alligator, Boats, Sleighs, Wagons, Harness, etc. For further particulars apply to

A. W. STEVENSON,
P. O. Box 2624
8-t.f. Montreal, Que.

Side Line

Wanted salesmen calling upon Lumber Mills to sell Babbitt metals as side line. Good commission. Give full particulars as to firms represented and territory covered. Address Babbitts, care of Canada Lumberman, 347 Adelaide Street West, Toronto. 10-11

Capital Wanted

Practical Lumberman requires $20,000 to take over and operate 40 square miles of Ontario Pine and Spruce timber. Toronto, Winnipeg and Minneapolis freight rates most favorable. More timber in district if additional capital is available.

HUGH R. PATRIARCHE,
848 Somerset Block,
10-10 Winnipeg, Man.

Miscellaneous

For Sale

One 10 station stationary Eco Magneto watchman's clock complete, practically new; suitable for sawmill or factory. Will sell cheap. Charles H. Nadeau, Port Daniel, East P. Que. 8-11

Birch Stumpage Wanted

We are open to consider a large block of Quebec birch stumpage; must be good operating chance and near railway. Apply Box 546, Canada Lumberman, Toronto, Ont. 7-10

For Sale

24 B. C. Timber licenses (perpetual) on inland passage to Prince Rupert. Also properties at Chilliwack Lake and Quatsino Sound. All good logging propositions.

CARL BLOCK,
5-10 Peoria, Ill.

STANDING TIMBER FOR SALE

For Sale by Tender, the Pine, White and Red Oak, Elm and Ash and other Timber situate in the Township of Seneca, County Haldimand, on the rear one hundred acres of the farm of the late F. O. Martin, deceased. The highest or any tender not necessarily accepted. Inspection may be had at any time. For further particulars apply to F. R. Martin, Executor of F. O. Martin, deceased, 7 Hughson Street South, Hamilton, or to Henry J. Martin, 508 Lumsden Building, Toronto, or to R. O. Martin, York, Ont. 10-10

Patriotic Lumbermen

An unconditional tender of the plant of the Great Southern Lumber Company, at Bogalusa, La., to the government, was made recently at Washington by Walter P. Cooke and W. H. Sullivan, president and general manager, respectively. Members of the Shipping Board expressed their gratitude and took the offer under advisement.

PHILIP T. COOLIDGE
FORESTER
Technical training and ten years' experience. Timber Estimating and Mapping. Supervision of Lumbering Contracts. Surveying. Forest Planting.
Stetson Building, 31 Central Street
BANGOR, MAINE

Tender for Timber Limits, Mill and Equipment

The following valuable property composing a going lumber manufacturing plant, is offered for sale in order that an Estate may be closed.

125 square miles, more or less, of timber limits under license from Ontario Government, conditions of which may be obtained from the Department of Lands, Forests, and Mines, which permits cutting of all kinds of trees; composed of Townships of Goschen, Carlyle, 67 and north half of Humbolt.

200 acres of land at mouth of river, on which are situated water-power sawmill, and mill dam, box factory, yard with docks and tramways, store, boarding house, blacksmith shop, machine shop, storehouses, stables, and about twenty houses for families. A steel tug eighty feet long; a steam launch and tow barge. Also camp equipment for two camps, including sleighs, horses, and all necessary rigging.

The territory is well watered and the river improved with dams, slides, etc. Blue prints may be obtained at the office of the undersigned.

Tenders for the purchase of the foregoing, endorsed, "Tender for timber limits, etc.," addressed to the undersigned, will be received up to Thursday, 28th June, 1917.

Terms: Certified cheque, payable to the undersigned, for 10 per cent. of the amount offered, must accompany the tender; 15 per cent. to be payable on the 1st of August, 1917; 25 per cent. on the 1st of November, 1917; 25 per cent. on the 1st of February, 1918, and 25 per cent. on the 1st of August, 1918.

Interest at 6 per cent. per annum from date of acceptance of offer to date each payment is made.

Cheques of unsuccessful tenderers will be promptly returned. The right is reserved to reject any or all proposals.

National Trust Company, Limited
20 King Street East, Toronto

Union Lumber Co.
Limited

White Pine
Red Pine
Spruce
Red and Jack Pine
Lath

Union Lumber Co., Limited
701 Dominion Bank Building
TORONTO, CANADA

Saw Mill For Sale

The Well-known Saw Mill of the Wm. Peters Estate, Parry Sound

The Wm. Peters Estate will sell en bloc or separately the equipment of their saw mill at Parry Sound. It consists of the usual machinery found in a mill producing 90,000 ft. per day, such as **Carriages, Boilers, Engines, Band Saws, Band Mill, etc.**

The mill was refitted and re-equipped in 1914, and has only operated three months since then. Some of the machines have never been used.

Address enquiries to

W. L. HAIGHT,
Solicitor,
Parry Sound, Ont.

National Railway Motor Cars

Motor cars can be used to a great advantage by lumber companies operating short line railways or logging roads. A motor car once put into service is indispensable. Can be used conveniently for transferring crews, meeting main line trains for mail, passengers, and officials; also for hauling supplies. It saves the use of a steam locomotive.

We make a full line of cars, such as a 2 h.p. speeder for one and two-men service; 4-8 h.p. car for handling four to ten men, and a four-cylinder, four-cycle, 10-12 h.p. car for heavy pulling, that can be furnished with cushioned seats and folding top for passenger service. Prices range from $125 to $500. F.O.B. Factory

Send for our 1917 motor car catalog illustrating this line.

NORTHWESTERN MOTOR CO. 1500 Spring St. **Eau Claire, Wis.**

2 L

Review of Current Trade Conditions

Ontario

One seldom visits the office of a lumberman in Ontario nowadays without being invited to join in a discussion of advancing prices of lumber and growing scarcity of stocks. In Ontario, as in other parts of Canada, this situation seems to be becoming chronic, irrespective to a considerable extent of the actual volume of trade in progress. To say that conditions are abnormal scarcely gives one a proper impression of the situation. Not only are they abnormal, but never before in history have they been abnormal to a similar extent, or in a manner even closely resembling that of to-day. Events are happening so rapidly from day to day that prices of yesterday have little to do with those of to-day, and the conditions which brought about yesterday's increase are supplanted by new conditions which were not dreamed of yesterday. For this reason it is not so important to discuss actual prices as to keep posted upon broad, general problems, any one of which may change the situation in a moment. Labor costs, the transportation situation, the requirements of the export markets, are each matters which produce price fluctuations all the way along the line from the delivered cost of material upon a construction job to the cost of the logs delivered at the mill. Difficult as it is to say just where prices stand in connection with any particular line, on account of the varying conditions at different manufacturing, distributing, and selling points, it is possible, to a certain extent, to present a fair range of prices at different points, and the prices which we are quoting—for instance, those at Toronto—give the trade a basis on which to estimate prices elsewhere. The prices we quote at Toronto have been revised from issue to issue for many months past, and every revision of late seems to have involved advances of a more or less important nature. Again to-day we show advances in nearly all lines, as compared with those of a short time ago.

Shingles have been increased in price by 25c a thousand. The shortage of raw material for the production of shingles has much to do with this. Ten dollars a cord has been paid recently for shingle bolts, and as a cord will only make 5,000 shingles, the raw material on this basis costs no less than $2 a thousand shingles.

The manufacturing season in Northern Ontario has commenced, and operations are now fairly general at all the mills. What the season will bring forth in the way of quantities and prices it is impossible to say. Undoubtedly the high cost of production of logs last winter and the advanced cost of labor and equipment this year will make it necessary for the manufacturers to obtain higher prices than have hitherto prevailed, if they are to make a profit. Even the outlook for further woods operations—those which will commence during the present summer in connection with next winter's output—is surrounded by uncertainty. There is now probably no question whatever that these operations will be carried on only at a far greater expense than those of last winter; and so it goes from season to season. So long as the war continues we have apparently to face steadily advancing costs of operation, and necessarily higher prices for the finished products.

Eastern Canada

The trade in Eastern Canada, like that in other parts of the country to-day, is chiefly characterized by a plentiful quantity of orders and greatly reduced stocks. In many cases mills are practically cleaned out of dry lumber, and are quoting high prices for what there now is on hand. Wholesalers are finding difficulty in obtaining anything like the quantity of stock that they could dispose of, and anything moving is bringing high prices. Shipping conditions show much improvement, railroad embargoes having largely disappeared. Montreal retail yards are very low in stock, but are only buying what they need for immediate requirements. The demand from shell box manufacturers continues on a large scale. Building permits in Montreal show an increase of $187,135 for the month of April and $699,645 for the year to date. Export trade with the United States is fairly good, but is handicapped by car shortage. The trans-Atlantic trade is very quiet. Steamship companies are offering very little space, and are asking 350 shillings per standard. Moreover, they are demanding that the freight be prepaid. It is reported that stocks of spruce in the United Kingdom are very low; also that the British Government have made extensive purchases in Canada.

Interesting developments are reported in connection with Eastern spruce at Boston. It is stated that large government orders are under consideration, and that all the important New England spruce mills will be employed on government business exclusively early in the summer. The demand for frame dimension for dwelling houses is not heavy, but thick spruce timbers have been moving fairly well, presumably for mill construction. Random sizes are selling a little better than frames at the following prices: 2 x 3, 2 x 4, 2 x 5, 2 x 6, and 2 x 7, $30 to $31; 2 x 8, $33 to $34; 2 x 10, $35 to $36; 2 x 12, $36 to $37. A strong hardwood market is reported from Boston. Plain oak is in demand. Sales of inch are reported at the following prices: Basswood, $48 to $50; maple, $50 to $52; plain oak, $68 to $70; quartered oak, $90 to $95; red birch, $68 to $70; sap birch, $60 to $62; white ash, $58 to $61. The hemlock trade at Boston is strong. Good clipped hemlock boards 10, 12, 14, and 16 feet are quoted up to $28 and $29, but some can still be had at $27. Continued strength is reported in shingles at Boston.

United States

A record volume of trade in general is reported from the United States. Government business is increasing steadily and compensating for losses occasioned by economy and retrenchment on the part of the ordinary consumer. Money is plentiful, and business is not hampered by its scarcity in any way, but money rates are firming up. Collections show improvement, being better than normal. The crop outlook is quite encouraging. The demand for lumber is probably greater to-day than at any time in the history of the industry, and production is running along at between 70 and 80 per cent. of normal. Cars, however, are scarce, and it is impossible to obtain sufficient labor to handle more business than the manufacturers are now taking on. Many manufacturers are refusing orders at any price. In the face of this situtaion it is reported that retailers' stocks are poorly assorted in many parts of the country—in fact, quite dangerously short. The demand for lumber for building purposes has fallen off in some of the larger cities, but this is more than compensated for by a better demand from surrounding country districts. Generally speaking, there is practically no improvement to note in the car situation during the past fortnight.

The commencement of real spring weather has improved the demand for hemlock. Manufacturers, however, are not considering this an altogether unmixed blessing, as stocks are so broken that they are unable to accept or fill orders. It is expected that the cut this year will be much smaller than was estimated a few months ago. Prices are firm and advancing. There is a strong demand for spruce, and the car shortage is restricting the volume of trade. Much Canadian spruce that formerly was marketed by vessel is now being moved by rail, which increases the car congestion. A good market is reported for clear spruce for aeroplane stock. Spruce prices in general are firm. The hardwood trade is very active, and all prices are strong. There is a particularly good demand for birch. A good spring demand for white pine has developed in the farming territory of the Middle West, and manufacturers apparently are unable to furnish sufficient stock. Most of the Northern mills are now operating, and therefore it is expected that before long this year's cut will be available.

Great Britain

A gradual reduction in the demand for lumber is reported from London, but this is thought to be of a temporary nature only, as a fair volume of work has been placed with contracting and controlled firms. The difficulty in carrying on such special work, however, is increasing daily, on account of the reduction in stocks of the important sizes and qualities, particularly 5 in. to 7 in. battens, redwood, whitewood, and spruce. Any improvement in the demand, such as has been indicated to some extent of late, would bring about a scramble to obtain such deals and battens as are available, regardless of dimensions.

At Liverpool the lumber market has been more or less featureless of late. Supplies are very limited, and it looks as though, in the near future, there will be no stocks suitable for government requirements unless forward shipments can be arranged. It is not unlikely that much higher prices may have to be experienced before long, on account of the heavy demand for shipbuilding in the United States. In addition to this, freight rates and insurance rates are still at enormous levels. Spot prices all continue very high, and sales are rare except for immediate consumption. Recent imports have been in a little greater volume, including silver spruce, planed boards, white deals, red deals, ash, and poplar.

The trade at Manchester is fairly good, the demand continuing steady. Prices are about the same as they were a fortnight ago, so far as soft woods are concerned. Very little is doing in connection with f.o.b. or c.i.f. business. Present f.o.b. prices asked by shippers, together with high freight rates, make it difficult for importers to negotiate any

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

business. On account of the German contraband declaration and blockade shipments of timber from the Baltic are still absent.

At Glasgow spruce continues to be the most active line in the lumber market. There is a fair movement from stocks from time to time, especially in well-squared Quebec deals. The movement of Halifax stock has not been quite so free. Pine is in fair demand, particularly for 11 in. third and fourth qualities. There are plenty of enquiries, however, for all sizes and grades, but available stocks are low. The birch plank are moving a little more freely, and stocks in first hands are very low. For munition boxes the 4 in. birch planks required are particularly scarce. Birch logs are only being sold in a retail way, and prices are very strong.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

New Brunswick Drives Doing Well

Fredericton, N.B., May 5.—(Special to the Canada Lumberman.)—Log-driving conditions on the St. John River have been good. Water has been holding at a good pitch. Men for stream-driving operations have been scarce, but it is probable that favorable weather conditions will have enabled the operators to get the greater part of their logs into safe waters at an early date. Last season's cut on the Upper St. John and its tributaries was in the vicinity of 215,000,000 feet. Of this not more than about 40,000,000 will come through the booms at Fredericton. This 40,000,000 will be divided as follows:

Stetson, Cutler & Co.	25,000,000
Murray & Gregory	8,000,000
Usher Miller	3,000,000
Other parties	4,000,000

The cut of the Frasers, Ltd., on the tributaries of the Upper St. John was about 50,000,000, but there is little, if any, of this to come through the Fredericton booms. For other parties the cut on the upper waters was about 125,000,000, divided as follows:

St. John Lumber Company	40,000,000
Van Buren Lumber Company	34,000,000
Blanchard	16,000,000
Ashland	20,000,000
Other parties	15,000,000

The cut of the Nashwaak Pulp and Paper Company, on the Nashwaak, was about 20,000,000. Satisfactory progress has been made in the driving operations, and the bulk of this cut is already in safe waters.

On the Restigouche log-driving conditions have been good. The cut on this river is 100,000,000, divided as follows:

Shives	50,000,000
Richards	35,000,000
B. A. Mowatt and David Champoux	15,000,000

The driving operations of the River Valley Lumber Company, of Oromocto, are progressing satisfactorily. On Little River the drive was well under way early in May, notwithstanding the falling water due to cold nights and mornings. There is 1,500,000 in this drive for the River Valley.

Montreal Trade Has Plenty of Orders

Montreal, May 9.—(Special to the Canada Lumberman.)—Plenty of orders, but little stock, briefly describes the condition of the lumber trade. The mills are practically cleaned out of dry lumber, and are asking stiff prices for what there is on hand. Wholesalers could do a much larger business if they were able to secure lumber, and firms with any stock have not the slightest difficulty in disposing of it at remunerative rates. The shipping situation has improved, particularly from the West, the embargo east of Port Arthur having been modified. Generally speaking, there is little change in the embargo position. The C.P.R. has lifted the embargo from Cote St. Paul, and Montreal is now free except for public team track delivery at Place Viger. The Grand Trunk, however, have prohibited team track deliveries at their Montreal terminals. The Intercolonial and Canadian Northern are moving freight more freely.

Local yards are stated to be bare of stock, and are buying only for immediate requirements. A large amount of stock has been disposed of by these yards to shell box manufacturers, who found it very difficult to obtain the necessary lumber. The demand from this source continues to be good.

The building permits are again higher. For April they totalled $622,940, an increase of $187,135, while for the year to date the total is $1,618,860, a gain of $699,635. During last month the permits were mainly for houses.

United States trade is fairly satisfactory, but the car shortage is proving a drawback to the filling of orders.

The export season has opened very quietly, only one firm so far sending goods overseas. The steamship companies has comparatively little space to offer, and are asking 350s. per standard. An innovation this year is the demand of the steamship companies that freight be prepaid, against which shippers have made protests. Hitherto freight charges have been paid on the other side. Now the steamship lines claim that this is inconvenient, and that the money is needed in Canada. This new method involves considerable financing here, the transfer of large sums from the United Kingdom, and an appreciable expense in the way of exchange charges. In addition, it means that adjustments for shortage of lumber will have to be made in Canada, instead of at the port of arrival. That will entail much correspondence, and, from the exporters' point of view, is an unsatisfactory way of dealing with such questions. The steamship companies will have received the freight money, and, of course, to that extent will be in a superior position should a dispute arise. Stocks of spruce are stated to be low in the United Kingdom, but with the existing high rates of freight and with a maximum selling price fixed by the government, there is no inducement for shipments to be made, even were more space available. It is reported that the British Government has made very extensive purchases in Canada.

Michigan Hardwood Market Report

At the recent quarterly meeting of the Michigan Hardwood Manufacturers the report of the Market Conditions Committee contained much valuable information about the condition of stocks and the market situation as it at present concerns hardwoods and hemlock produced by the members. On the matter of stock conditions the report pointed out that the total hardwood stock of members of the association is 47,000,000 feet less on hand at present than a year ago and 48,250,000 feet less of unsold stock than a year ago. No. 2 common and better hardwoods in ash, basswood, beech, birch, rock elm, soft elm, and maple, compared with a year ago, showed 35,134,000 feet less on hand and 27,750,000 feet less of unsold stock than one year ago. No. 3 common hardwoods in ash, basswood, beech, birch, rock elm, soft elm, and maple showed the net amount of unsold stock is 20,466,000 feet less than a year ago and 11,871,000 feet less stock on hand than a year ago.

The report stated that the estimated production for 1917 of 363,411,000 feet as reported on April 1 by 49 members is 21,215,000 feet less for the same 49 members on January 1, and is 16,195,000 feet less than the same members actually produced in 1916. Shipments of No. 3 and better hardwoods for the last six months have exceeded the production for the same period by over 10,000,000 feet, and the production of hardwoods in the last six months is approximately 75 per cent. of the present stock on hand. The report mentioned that No. 3 common birch appeared to be about the only item out of line, but when the small increase in this item is considered and the steady decrease in No. 3 common maple is noted there can be but one result, in the opinion of the committee, and that is that birch will be wanted, and at good prices.

That part of the report regarding the hemlock stock showed that there is on hand 27,020,000 feet less than a year ago, and 19,200,000 feet less unsold stock than a year ago. The production of hemlock among members for the last six months has only been 7,000,000 feet in excess of shipments, and production for this period was about 80 per cent. of the present stocks on hand. The 1917 estimated production of 195,945,000 feet, as reported on April 1 by 48 members, is 6,236,000 less than the same members reported on January 1. The estimate is about 15,000,000 feet more than the same firms reporting produced in 1916.

The lath market is described as flourishing, with a stock of 9,469,000 lath on hand April 1, as compared to 15,327,000 on hand a year ago. The amount unsold was 10,183,000 a year ago, and there is now unsold 5,260,000.

"The fact that a state of war now exists should not cause us any immediate alarm," concluded the report. "The demand for our products must necessarily continue, although the uses may be somewhat changed. Another feature to be considered is production. We have estimated what we will produce, but will we have the labor with which to do so? The larbor situation is growing more serious every day and will continue so. The enlistments will draw heavily from our workingmen, if not directly, certainly indirectly. We are sure to lose some of our men, and from where are we going to replace them, even at advanced wages?"

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WOODSTOCK, N.B.

Manufacturers Not Assisting Retailers Sufficiently

O. A. Pier, secretary of the Lumbermen's Exchange, of St. Louis, and for several years previous to the organization of that body identified with the work of the Retail Lumber Dealers' Association, holds that the general lumber interests should give more attention to the retail selling of lumber. In this connection Mr. Pier advocates some rather radical ideas, based on this general proposition. The retail trade holds today the largest opportunity to increase the outlet for lumber because the manufacturers and others already have thoroughly pushed lumber in other outlets, such as sales to manufacturers of lumber products, railroads, shipbuilding companies, etc., and that the outlet for lumber in these uses is now limited only by the actual consumption. The retail outlet, Mr. Pier insists, has been neglected and can be vastly improved and expanded.

"This work should begin," said Mr. Pier, "as an educational propaganda with the retail dealer and his salesmen. This, to my mind, is more important than the education of wholesale salesmen. The prosperity of the manufacturer and wholesaler depends very largely upon the prosperity of the retailer, and under present conditions the retailer will not be and cannot be as prosperous as he should be on account of the changing economic condition of the country.

"There are too many superstitions (call them that for the want of a better word) in the retail business. Perhaps they might be termed misunderstandings. In this city, for instance, most dealers will tell you that all of the business is competitive. Figures are obtainable in many cities, and these show that only 10 to 30 per cent. of the business actually is competitive. Thus we are forced to the conclusion that the remaining per cent. of the business suffers because of that belief.

"Retailers need a more scientific and practical understanding as to the proper method of counting the cost of doing business and the actual definition of a reasonable profit. There must be found some method of persuading them to ignore the basic cost of the commodity and its distribution, which, by the way, has nothing to do with net profit. The question of equity also enters here. Why should one building bill be sold at cost and then another bill be sold at a higher figure, and the seller, through such methods, injure some other buyer? Such methods year in and year out result in a continuance of a cut-throat policy. Those who buy for repairs and small work are likewise discriminated against by this form of intense activity, while an unscrupulous contractor is the only one benefited, and that at the expense of the consumer.

"In the education as to an accounting system, dealers should be brought to a uniform conception of correctly charging interest on their investment in sites, cost of buildings, wages for their own time, interest on their investment in lumber; in fact, should take into account every item of expense. Far too many are apt to charge their lots at cost of taxes, etc., and thus figure the cost of lumber down to a point whereby they can underbid men who charge all detailed costs into sales.

"There are endless possibilities to this reform propaganda. Not the least of these are instances that emphasize to the retailer the wiles of the contractor who smiles and says: 'I have a somewhat lower bid; I would prefer to give the contract to you if you could shade your price on certain items of dimension, or finish, etc.,' while the fact is, the dealer's bid is the low one and this effort is merely to get him to cut his own bid. Also there is the practice that approaches fraud, that of persuading the contractor to permit 'one grade lower.' Every lumberman knows the endless variety of these excuses."

With these ideas as a bare suggestion of what might be accomplished, Mr. Pier turned to another phase:

"I believe that every retailer has the lumber interest at heart (as naturally he would have) and that he prefers to sell lumber instead of building substitutes, and here is where the manufacturer has not given him a fair deal. Think over the roofing situation. In every paper of general circulation you will read advertisements of various kinds of roofing except lumber. Tar paper, composition, asbestos, asphalt and imitation tiling. All of these are lumber substitutes, and the advertising creates a demand that the lumber dealer as a building supply man is forced to meet. People fairly cry for these things and will accept no substitutes. How often do you read an advertisement for wooden shingles? There have been campaigns of wooden shingle advertising and I understand that they paid. Why were they not maintained? With the proper advertising, a demand could be created that would easily pay the additional cost. I venture to say that a great many shingle companies sell an output many times greater in a year than any of the substitute roofing companies. Why not have people asking for specially branded, guaranteed shingles, instead of poorer substitutes? Also, why not supply suitable nails, just as other roofers do, so that a good product will not be spoiled by cheap nails?

"Take another phase of the question: Linoleum advertisements meet the housewife in the magazines and papers she reads. The advertising of hardwood flooring, which is a better advertising proposition, is conducted purely locally by a dealer playing a lone hand. There are brands of flooring that should be advertised from one end of the country to the other. To sell products that are advertised handsomely, honestly and in a high-grade manner would add dignity to the lumber dealers' profession.

"The big example of the use of advertising in lumber is the cypress campaign. The benefit of that advertising is apparent to all who do not even stop to read. There are other branches of the hardwood trade that have a larger product to advertise. But they do not, yet they wonder why substitutes steal their trade.

"I often notice that large southern mill firms have cut prices, say on boards, $1 per 1,000 feet, in order to move an accumulation of several million feet. Say such a cut moves 3,000,000 feet. The reduction in price has cost $3,000. I wish sometimes that a firm, instead of making this price cut, would insert full-page advertisements in newspapers in their territory to the cost of $3,000 telling how many uses pine boards can be put to, just how they can be used around the house and yard, etc., to see if a boom in retail selling of these boards cannot be created to meet the end sought. By the price-cutting stunt, the mill man only puts some dealers in a position to cut prices on his competitors and cause discount in the trade.

"Another thing I have on my mind: Everywhere you hear 'a man cannot build (a house or a chicken coop) this year because lumber is up so.' To overcome this misunderstanding it is the duty of the manufacturer and the wholesaler to nullify this erroneous conception, and they should meet it by general advertising. The public should be told that the average six-family, four-room flat or apartment contains only 12,000 to 20,000 feet of lumber. If the advance in the market at any time be as great as $5 per 1,000 feet, the added cost on such a building would be only $60 to $100 and does not greatly affect the total cost.

It should be advertised that lumber costs more than it did fifteen years ago in many localities because the freight rate is higher. The public should know where the additional tax comes in and why. It should know that the actual cost of handling lumber, except freight, is less than ever, notwithstanding the fact that wages and all other expenses have increased. Keep this, and the fact that lumber is only 10 per cent. of the cost of a modern brick building, constantly before the public; and that because of improved mill work, etc., frame buildings are not relatively increased in cost.

"I am familiar with the several propagandas toward this end. But, in my opinion they must be bolder to accomplish their purpose. Especially should the campaign be pushed to the general public, and not confined to trade or class papers. The substitute makers use the trade and class papers only as accessories, not as the principal medium. Yet, when lumber advertises, it appeals to one class at a time. There are lumber firms today doing business measured by millions of feet a year that are not spending any dollars in general advertising. It is expected that a retailer will enthusiastically support their product against the products of a man who helps them to sell a substitute.

"This lack of organization from retailer to customer cannot be entirely blamed upon the retailer. In no other trade is the retailer supposed to bear the entire burden. Perhaps this idea originated when lumber was a necessity. That time is past. There is practically nothing for which lumber is used for which a substitute cannot be utilized, not as satisfactorily, of course, but utilized. The magazines teem with aids in selling groceries, dry goods, drugs, hardware and confections, but mighty few are found for lumberdom.

"I sometimes think that the first move should be for a great central body, which would advertise far and wide that it is organized to give advice to users of lumber and to explain how lumber is measured and graded, and how it should be used, and invite questions from factory owner and house holder, even if the latter only wants to erect a shelf in his closet.

"In a recent report Mr. Julius Seidel, chairman of the public affairs committee of the Lumbermen's Exchange of St. Louis, urged that lumbermen interest themselves in public affairs and become identified with civic and business organizations to the point of attending all meetings for municipal and community betterment. In this way they will place themselves in a position to be consulted and they will be consulted as to appointments that concern their business, as to ordinances, etc. In this city Mr. Seidel and others took such an interest in public affairs last year that by their advice the city supply commissioner changed the method of buying lumber, greatly to the advantage of both the trade and the city. Also, he and his committee were able to assist in a revision of the old building code that had become obsolete on account of modern conditions, and, therefore, to some extent unfavorable to lumber. It was obvious that for some time past the lumbermen had been asleep. Their suggestions were well founded and were accepted to the advantage of all concerned.

"Business organizations get into the habit of thinking that the lumber trade lacks progressiveness. There should be, therefore, lumber members in quasi-public and civic organizations in every city. My idea is that the lumber trade needs intelligent publicity from every angle."—The Southern Lumberman.

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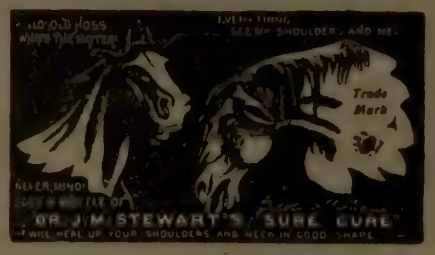

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Converting Office Expense Into Accounts Receivable

By Robert S. Pasley, C.P.A.

The time is past when the public accountant has to apologize for his existence or explain the reason of his being to any gathering of intelligent business men. We are living in an age of advanced ideas and of governmental supervision. A man's business is no longer his own affair. The government sees to it that our business is their business also, and this fatherly interest is displayed, not only in the cases of railroads, express companies and other public utilities which are required, not alone to practically regulate their rates in accordance with governmental requirements, but to keep their accounts exactly as laid down for them), but extends in a modified degree to each one of us. The internal revenue tax is familiar to all of you; by this time no doubt, you have struggled and wrestled with its provisions and have determined the share of last year's profit belonging to the government. We find our capitalization taxed, dividends declared over a certain amount taxed, profits taxed and the rate of taxation continually increasing. We find that banks when approached on the subject of a loan have to be shown facts, not visions—they are from Missouri; and many other matters are continually arising and will continue to come up, showing that a firm or corporation can no longer consider their business as being their own affair absolutely. All this brings to the business man's attention the fact that there was a great deal about his own business with which he heretofore had not been familiar, and so he calls in the public accountant—the business doctor—the one whose calling it is to shed light where darkness prevailed; who has extended experience in the affairs of widely different organizations, and whose value consists in being able to utilize the fund of knowledge which he has acquired over such an extended field for the special benefit of his immediate client. The day is almost with us when the executive will in all instances take business problems to his accountant just the same as he takes legal problems to his lawyer. Many business men are doing it today. None of you hesitate very much when a lien is filed, or the wording of a contract clause is ambiguous or a question arises as to the interpretation of a paragraph in a specification as to just what you should do. You realize that these things are the business of men trained in the law and familiar with court decisions who make their livelihood by coming to your assistance and straightening out such tangles. You do hesitate, however, a good deal about calling in the public accountant when the results of your business over a certain period do not show as well as you thought they should; when the results presented to you by your bookkeeper (if you ever have results presented by your bookkeeper) do not seem to be very clear; when you are endeavoring to negotiate a loan with a bank and the bank wants to be assured of what your assets and liabilities consist; when you are worried over the fact that you appear to have made some rather wild guesses as to just what your overhead expense was, and have based your selling price on guesswork, and so forth and so on ad infinitum. Expenses in connection with the acquisition of new orders are cheerfully paid by the average business man, and legal expenses are incurred without much hesitation, but, as I say, there is a great deal of hesitancy on the part of many men who really need the services of an accountant, and know they need the services of an accountant, before they call the accountant in, and I venture to say that after they have brought their courgae up to the sticking point and incurred the moderate expense involved, they feel that they have taken a step forward, and the results justify the feeling.

Gentlemen, I am not here to sing the praises of my profession, but rather as one who knows whereof he speaks, to direct your attention to a very important phase of business which does not receive the attention it merits, and that is, that you can, in seeing your own past experience in business, as reflected by your accounts (which are nothing more or less than the history of past transactions) apply that history and that experience to your future operations. During our lives we all make mistakes; we would not be human if we did not; I made a mistake once myself (I told a client the facts about his business, but what he wanted was a course in Christian Science), but making mistakes, though an evil at the time, can be the source of future benefit, providing we know in just what the mistakes consisted. In business it is the same; if we have such records of our transactions that can be read intelligently, and that give complete information, we can learn much. If, when a job is completed or a contract finished, or sales consummated, we find a loss, or we find a smaller margin of profit than we originally expected, and if the accounts are so arranged that the reason for this loss or this low margin of profit can be clearly ascertained, we are in a strong position to recoup that loss on the next similar job we undertake. Where, however, our accounts are not so clear that we can glean from them that kind of information, if competition is at all keen in our own particular line, we can work like slaves increasing our business and far from progressing or accomplishing anything real we are just like so many children groping in the dark. Our experiences are of no use to us; we make mistakes one after the other, and when we are confronted

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with exactly the same conditions, we make exactly the same mistakes.

If we were gifted with extraordinary memories so that every transaction into which we entered would remain indelibly fixed on our mind, there would not be any necessity to keep accounts. Accounts are troublesome things to keep; there is more or less expense involved in keeping them; a good deal of the office rent, telephone and clerical hire is all in connection with knowing just what we have done and how we stand with our neighbors, etc. Therefore we would not go to such expense and trouble to have accounts if we could transact business without them. If accounts then are an absolute necessity, why not have them in such shape that the story they tell is intelligible to us, and have them so that we can get from them the most they can give us, and have them so that results of our past transactions can be used as a provision for the future.

To my mind, the utility of accounts is two-fold, first, enabling us to know what has taken place over a given period in our business, whether we have made a profit or a loss, which among our expenses have been high and which low, the amount we owe our creditors, and the amount due us by our customers, the balance in the bank from day to day, what it has cost us to do business or our overhead and a good deal of other information. That is the only value a great many business men consider accounts to have, but to my mind accounts have a more far reaching effect, and a more practical application to business than the above. After all, when a transaction is finished, it cannot be changed; if you sell some materials or you enter into a contract and complete your end of it, and get your money, whether you made a little profit or a little loss, it cannot be changed now on that particular job, or on those particular sales. The matter is finished and you cannot alter the provisions of the contract. The accounts will show you, if they are adequate and are properly kept, just what the result of that contract has been, but the accounts will also show you, and this I consider the most practical application of accounting, the pitfalls you must avoid in the future, the mistakes you must not again make; the overhead items you ignored when preparing your estimates are all here assembled; they are there providing, of course, that your books are arranged to take care of them, and it is up to you to derive benefit in your future operations from this history of your past year. You can obtain much valuable information from your accounts which will be of considerable help to you on work not completed and on work not yet figured, and in determining proper selling prices.

The question of cost accounts is giving trade associations considerable thought at the present time, and this is the result of the keen competition which prevails in nearly every line of business. We live in a modern age and modern methods prevail. While the government will not permit you to regulate prices, there is nothing to stop you from educating each other as to what prices are, meaning material cost plus labor cost plus overhead charges plus profit, so that some of you will not be doing serious injustice to the others knowingly.

If one of you in figuring the cost of work is not thoroughly familiar with your rate of overhead expense as related to your particular business and undertakes to estimate this overhead, the chances are you will underestimate that item and wind up with a very low figure which no doubt will get the job. If business is dull and you have a lot of men employed, who would be doing nothing if you did not have that particular work, it might pay you to take the job at a loss, but it certainly is not good business policy to take a piece of work, thinking you are going to make a profit, when in reality you are bound to make a loss, all because you do not know what your overhead charge is. You are taking work then at a loss and taking it away from one whose price is somewhat higher than yours, though his estimated profit may be lower, for the reason that he knows what his overhead is and he could make some money on the work. That is generally why the matter of accounting seems to be occupying so much of the attention of the various meetings of trade organizations being held at present throughout the country. I attended a meeting recently of the Lumbermen's Association in the State of New Jersey. I spoke on this subject to them, and I had the pleasure of listening to several members of the association who preceded me, speak on this same topic of cost accounts, overhead charges, uniform accounting, etc. We are not doing business today as our forefathers did, and we must not keep our accounts as our forefathers did. Modern methods prevail, and we must not let the accounts of our business be the last part of the organization to receive attention. If we do, we will be the sufferers ourselves.

The American Oak Manufacturers' Association will soon begin its campaign of oak advertising. Owing to the present craze for dark finishes oak has been neglected. It is going to come back, however, very rapidly when this wood is again brought to the attention of the general public.

128,350 Laths in Ten Hours

Our Lath-Mill and Bolter have made a test cut in ten hours of 128,350 four foot laths, 1½ in. by ⅜ in., counted, tied and piled.

Four-Saw Bolter

A Few of the "400" who use Payette's Lath-Machinery:

Graves, Bigwood Co., Byng Inlet, Ont.
Victoria Harbor Lumber Co., Victoria Harbor, Ont.
Georgian Bay Lumber Co., Waubaushene, Ont.
Colonial Lumber Co., Pembroke, Ont.
Theo. A. Burrows, Grand View, Man.
Wm. Milne & Sons, North Bay, Ont.
C. Beck Mfg. Co., Penetanguishene, Ont.
Manley Chew, Esq., Midland, Ont.
Chew Bros., Midland, Ont.
James Playfair Co., Midland, Ont.
McFadden & Malloy, Sprague, Ont.
Pembroke Lumber Co., Pembroke, Ont.
Petawawa Lumber Co., Ltd., Pembroke, Ont.
Firstbrook Box Co., Penetang, Ont.
Gres Falls Lumber Co., Three Rivers, Que.
Foley Bros. & Northern Coast Co., Scot, Ont.
Spanish Mills Lumber Co., Ltd., Cutler, Ont.
Spanish Mills Lumber Co., Spanish Station, Ont.

P. Payette Co.

Engineers and Machinists,

PENETANGUISHENE, ONT., CAN.

J. T. Payette, Prop.

Tents of Every Description

SHELTER
PYRAMID

LUMBERMAN'S
RAILROADER'S

We Manufacture from the Raw Cotton

WOODS
NON ABSORBENT
DUCK
REGISTERED 15TH DAY OF MAY. 1905.

The Most Serviceable Duck Made

SEND FOR OUR CATALOGUE

Smart-Woods LIMITED

OTTAWA
TORONTO
MONTREAL
WINNIPEG

Boiler room of Cape Breton Pulp Co., Murray, N.S.. containing three 72" x 18'-0" Jenckes Tubular Boilers in Dutch Oven setting.

Jenckes Boilers

Built to conform with the various Provincial Boiler Codes.

Enquiries invited to nearest sales office

Sherbrooke
St. Catharines
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908 E. T. Bank Building
Toronto
710 C. P. R. Building.
Cobalt
Vancouver
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The Jenckes Machine Co., Limited

Works: SHERBROOKE, QUE.; ST. CATHARINES, ONT.

The EAGLE LUMBER CO. Limited
WHOLESALE LUMBER
SANS DIEU RIEN
MONTREAL, Canada
Head Office at Montreal.

SPRUCE
ROUGH or DRESSED

Saw Mills at
MONT LAURIER, QUE.
STE. MARGUERITE, QUE.

Dressing Mills at
ST. JEROME, QUE.

Herman H. Hettler Lumber Co.
Midland, Ontario

Manufacturers of

WHITE PINE and RED PINE

LUMBER and LATH

EXCELLENT PLANING MILL FACILITIES

Special Attention Given to Prompt Delivery

Everything in Spruce

Dressed and in the Rough

Campbell, MacLaurin Lumber Co.
Limited
Board of Trade Building, MONTREAL

SPRUCE AND **BIRCH**

GOOD STOCKS PROMPT SHIPMENTS SATISFACTION

C. A. SPENCER, LIMITED
Wholesale Dealers in Rough and Dressed Lumber, Lath and Shingles
Offices—McGill Building, MONTREAL, Quebec

EDGINGS

Ontario

The Andrew Malcolm Furniture Company, Listowel, Ont., are contemplating the purchase of a large quantity of high grade lumber.

T. B. Chalk, Port Hope, Ont., recently lost his sawmill at Bewdley, Ont., by fire. The mill and machinery were completely destroyed.

The proposed sale of hardwood timber in the townships of Mulock, Merrick, Stewart and Lockhart, which was advertised by the Ontario Government, tenders to close on April 2nd, has been withdrawn, no tenders having been received.

The John Carew Lumber Company, Limited, Lindsay, Ont., started operations at their mill during the first week in May. The company only conducted two camps last winter, but also purchased a quantity of logs from jobbers.

Dan. Baird, corner Church and Station Streets, St. Marys, Ont., is having work commenced at once on the erection of dry kiln lumber sheds to cost $2,500. The building will be one storey, 90 x 90, concrete foundation, frame construction and electric lighting.

The auction sale of a timber license in the township of Proudfoot which was advertised to be held at the office of C. M. Henderson and Company, Toronto, on May 2nd, brought together only a very small number of interested parties, and no one made any bid whatever.

The J. P. Quinlan Mfg. Company, Limited, recently incorporated, will manufacture furniture and school and office fixtures. J. P. Quinlan and M. McQuinty, North Bay, Ont., are interested. The company is capitalized at $40,000. The ratepayers of North Bay have passed a by-law to guarantee $15,000 of bonds for the company.

Eastern Canada

The St. Lawrence Lumber Company, Quebec, P.Q., has been registered.

Alphonse Qubut, St. Hubert, P.Q., is contemplating the erection of a sawmill.

The Whyte-Campbell Lumber Company, Limited, which was incorporated in January, 1917, with head office at Montreal, P.Q., has been registered.

Fraser Limited, Fredericton, N.B., started operations at their mill at Fredericton on May 1st. The York and Sunbury plant commenced a few days later.

James Holmes, Doaktown, N.B., has purchased the mill of Henry Swim at Doaktown, and is arranging to operate it extensively this season. During the past two years Mr. Holmes has been unfortunate enough to lose two mills by fire.

Operations on the St. Croix River this year will be considerably reduced. The Murchie steam mill at Milltown will not be operated and the mills of H. F. Eaton and Sons will not commence until the second week in June. The Todd mill owned by the Eaton Company at Milltown, N.B., started about the end of April.

Steps are being taken by Mr. T. H. Estabrooks, St. John, N.B., and J. A. Likely, in connection with a proposed plant for extensive ship-building operations in New Brunswick. They have already interviewed the provincial government and practically secured promises of assistance in the form of an extension of government credit.

Owing to the Budget proposal to tax the profits of commercial corporations still further, the Brompton Pulp and Paper Company, East Angus, P.Q., have decided to abandon for the present the scheme to develop a water power three miles below their present pulp and paper plant at East Angus. The directors had placed orders for the necessary waterwheel and electrical equipment.

A message from Nicolet Falls, P.Q., reports the destruction by fire on April 29 of the pulp mill and sash and door factory of the Lotbiniere Lumber Company, in which Mr. F. N. McCrea, M.P., and Mr. E. W. Tobin, M.P., are interested. The fire was observed in the barker room shortly after eight o'clock, and the flames soon spread through the whole plant. Efforts were directed towards saving the lumber and pulpwood in the yard, and a large quantity of pulpwood was saved.

H. V. Berry, Fort Plain, N.Y., has commenced negotiations with several Canadian parties with whom he has come into touch through the Canada Lumberman, in connection with his proposal to establish a band sawmill for the production of spruce lumber, somewhere in eastern Canada. Mr. Berry is looking for a location where spruce runs to a good size, where a good mill site is available on a drivable stream, and located on a railroad, so that he can buy logs from settlers as well as from the limits which he may purchase.

The Great Eastern Pulp Company has been organized for the purpose of erecting and operating extensive pulp and lumber mills at Madeline River,

Gaspe County, P. Q., near the New Brunswick border. It is reported that the company will expend more than $1,000,000 upon the plant and operations. An extensive supply of timber, good water power, a deep water port, and railway connections are features of the undertaking. Three hundred thousand acres of timberland have been transferred to the new corporation, which is issuing $600,000 bonds and a similar amount of stock. The directors include John Mullen, Bangor, Me., President; A. H. Cook, K.C., Paspebiac, Vice-president; Fergus Murphy, K.C., Quebec, P.Q., Secretary; and G. Schneck, New York. H. S. Ferguson, of New York, will be in charge of construction work, contracts for which have already been let. The pulp mill will have a capacity of 300,000 tons of ground pulpwood annually and the output of the sawmill will be 10,000,000 feet of long lumber annually. It is expected that the plant will be ready for operation by November 1st.

Western Canada

The Campbell River Lumber Company's shingle mill at Colebrook, B.C., was recently destroyed by fire, the loss amounting to about $10,000. The mill, which contained modern equipment, was practically wiped out.

The large paper mill at Port Mellon, B.C., recently acquired by the Rainy River Pulp and Paper Company, consisting of New York financiers, will be used for the production of kraft paper. The necessary alterations to the plant are practically completed, and production is to commence this month. Only the first unit will be started at first. The other unit will probably be ready for operation about the end of June.

Mr. Andrew Wallace, manager of the Wallace Shipbuilding Company, North Vancouver, B. C., reports that his company has received orders for the construction of two more steel vessels, to cost approximately $1,400,000, and that orders for eight more wooden vessels are in sight, which will bring the total up to $5,000,000. The wooden boats will be 285 feet long, which is 60 feet longer than the Mabel Brown and her sister ships.

In order that it may handle the large orders received from the Imperial Government for ammunition boxes, the Cameron Lumber Company, of Victoria, B.C., has taken a four months' lease on the mill of the Canadian Puget Sound Lumber Company, Limited (in liquidation), with an option to renew the lease for a further period of six months. The same application included a request for an order granting leave to sell the fallen logs at Jordan River, which have been there for the past three years, to W. B. Ryan and Charles Sorrensen; also for the use of the logging equipment of the Canadian Puget Sound Lumber Company at Jordan River. The application was granted in Supreme Court chambers.

Miramichi Trade Conditions

Private advices received by the Canada Lumberman in regard to operations on the Miramichi River, New Brunswick, indicate that a few of the mills have sold their cut for the season, but that others are holding, and anticipate obtaining a higher price later on. Information at present available shows that none of the sawmills got out more logs this season than last, all having operated cautiously during the past winter; but the pulp interests have taken out a larger quantity of logs than formerly. The American market is very strong at present, and purchasers are offering exceptionally good prices for New Brunswick stocks. The supply of cars has improved of late, and it now looks as though quite a large portion of the Miramichi cut will go this year to the United States and also some of it into Ontario markets.

An order for 2,900,000,000 feet of yellow pine is being prepared by the United States Government, the details being now nearly completed. The Southern Pine Association has been preparing the necessary information for the government to base its order upon.

Railroads Increasing Minimum Weights

According to an announcement recently made by the Canadian railways, they intend to advance the minimum weight on cars of lumber and forest products, including pulpwoods and tan bark, by amounts varying from 6,000 to 11,000 pounds, effective May 21.

The present minimum weight on lumber and forest products, excepting logs, bolts, and pulpwood, is as follows:

	Pounds.
For cars of all kinds under 35 ft. in length, inside or platform measurement	30,000
Proposed minimum	40,000
For cars of all kinds, 35 ft. and not exceeding 36 ft. 6 in., or 36 ft. 10 in. for flat cars, minimum weight	34,000
Proposed minimum	45,000

The railway companies also propose to advance the minimum rate accruing to the originating or delivering carrier on traffic to and from their connecting line from 2½c to 3c per hundred pounds.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
1 x 6 in. 10/16 ft. merchantable	29 M
1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable.	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

The McLennan Lumber Co.
LIMITED
Wholesale and Retail
21 Dorchester Street W. — MONTREAL, QUE.
Telephone Main 8656. Private exchange to all departments

H. BOURGOUIN
Dominion Express Bldg., 145 St. James St., Montreal
WHOLESALE LUMBER AND TIMBER
Dressed and Rough
White and Red Pine, Spruce, Hemlock, Banksian Pine, Birch, Maple, Dimension Cedar, B. C. Fir, Yellow Pine, Railway Ties, Fence Posts, etc.
Prompt shipment. Satisfactory stock. Good service Write for Prices.
A. F. B. AUSTIN, Manager

Your Blower System

If you contemplate installation of a new blower system or an extension of your present one, write us, as we have a unique proposition to offer. There is no heating, clogging or shaking with our system.

Prices on application

The Toronto Blower Co.
156 Duke St., Toronto

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better.	$50 00	52 00
1½ inch No. 1 cuts and better.	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	35 00	36 00
1 x 6 common and dressing ...	37 00	39 00
1 x 8 common and dressing ...	38 00	40 00
1 x 10 common and dressing ..	40 00	42 00
1 x 12 common and dressing ..	43 00	45 00
1 x 10 and 12 mill cull stocks	30 00	31 00
1-in. mill cull sidings	27 00	28 00
5/4 and 6/4 x 4 m.r., m.c. out.	35 00	36 00
5/4 and 6/4 x 5 m.r., m.c. out.	35 00	36 00
5/4 and 6/4 x 6 m.r., m.c. out	35 00	36 00
5/4 and 6/4 x 8 m.r., m.c. out.	36 00	37 00
5/4 and 6/4 x 10 m.r., m.c. out	42 00	43 00
5/4 and 6/4 x 12 m.r., m.c. out	44 00	45 00
2 x 10 common	36 00	38 00
2 and 3 x 12 common	39 00	40 00
1 x 8 box and common		33 00
1 x 10 inch box and common.		35 00
1 x 12 inch box and common.		35 00
1-in. mill run sidings		35 00
1-in. mill run shorts		28 00
1-in. mill run Norway		30 00
2-in. mill run Norway	33 00	35 00
Norway, c. and cf. 1-in.	38 00	40 00
Norway, c. and cf. 1¼-in. ...	39 00	41 00
Norway, c. and cf. 2-in.	39 00	41 00
Spruce mill run 1-in. and 2-in.	31 00	32 00
Spruce mill culls	26 00	27 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		23 00
1 x 6-in. x 9 to 16 ft.		27 00
1 x 8-in. x 9 to 16 ft.		28 00
1 x 10 and 12 in. x 9 to 16 ft.		29 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		26 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft		27 00
2 x 4 to 12 in., 12 and 14 ft...		27 00
2 x 4 to 12-in., 18 ft.		30 00
2 x 4 to 12-in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		22 00
Clear in. B.C. cedar, kiln dried	50 00	55 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		38 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		39 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		39 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		40 00
10x20, 18x20, up to 32 ft.		40 50
6x18, 8x18, up to 32 ft.		40 50
6x20, 8x20, up to 32 ft.		40
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain..		41 50
Fir flooring, 1 x 4, edge grain..		44 50
Fir flooring, 1 x 4, flat grain..		37 50
No. 1 and 2, 1-in. clear Fir rough		48 00
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		54 00
No. 1 and 2, 2-in. clear Fir rough		50 00
1½-in. No. 1, 4-ft. pine lath.		6 00
1½-in. No. 2 4-ft. lath		5 70
1½-in. 32-in. pine		2 75
1½-in. No. 1 4-ft. hemlock lath.		4 50
1½-in. mill run hemlock lath.		4 25
XX B. C. cedar shingles		3 35
XXX 6 butts to 2-in.		4 45
XXXXX		4 95

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	$65 00	71 00
Ash, white, No. 1 common....		45 00
Ash, brown, 1sts and 2nds, 4/4		57 00
Ash, brown, com. and bet. ...		45 00
Ash, brown, 1sts and 2nds, 6/4 and 8/4		65 00
Birch, 1st and 2nds, 4/4		50 00
Birch, No. 1 com. and bet., 4/4		40 00
Birch, 1st and 2nds, 6/4 and 8/4		55 00
Birch, 1st & 2nds, 10/4 and 12/4		65 00
Birch, 1st and 2nds, 16/4		70 00
Basswood, 1sts and 2nds, 4/4 ...		50 00
Basswood, No. 1 com. and bet., 4/4		43 00
Basswood, No. 2 and 3, common		22 50
Basswood, 6/4 and 8/4, 1sts and 2nds		55 00
Basswood, 6/4 and 8/4, com. and bet.		42 00
Basswood, 4/4, No. 2 com. and bet.		37 00
Soft elm, 1sts and 2nds, 4/4 ...		45 00
Soft Elm, No. 1 com. and bet., 4/4		38 00
Soft Elm, No. 2 and 3 common.		19 00
Soft Elm, 6/4 and 8/4, 1 and 2		50 00
Rock Elm, 1sts and 2nds, 6/4 & 8/4		55 00
Rock Elm, No. 2 com. and bet., 6/4 and 8/4		40 00
Soft Maple, 1sts and 2nds, 4/4..		40 00
Soft Maple, com. and bet., 4/4.		33 00
Soft Maple, 6/4 & 8/4, 1sts and 2nds	45 00	50 00
Hard Maple, 1sts and 2nds, 4/4		43 00
Hard Maple, com. and bet., 4/4		37 00
Hard Maple, 12/4 and 16/4, 1sts and 2nds	65 00	70 00
Red Oak, plain, 1sts and 2nds, 4/4		62 00
Red Oak, plain, No. 1 com., 4/4		43 00
Red Oak, plain, No. 2 com., 4/4		32 00
Red Oak, plain, 1sts and 2nds, 6/4 and 8/4		68 00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	77 00	85 00
White Oak, plain, 1sts and 2nds, 4/4		62 00
White Oak, plain, No. 1 com., 4/4		43 00
White Oak, plain, No. 2 com., 4/4		32 00
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	62 00	65 00
Red and White Oak, plain, No. 1 com., 5/4 and 6/4		45 00
Red and White Oak, plain, No. 2 com., 5/4 and 6/4		35 00
Red and White Oak, plain, 1sts and 2nds, 8/4		70 00
Red and White Oak, plain, No. 1 com., 8/4		50 00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00	85 00
White Oak, ¼ cut, 1sts and 2nds, 4/4		89 00
White Oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds		92 00
White Oak, ¼ cut, No. 1 com.		57 00
Hickory, 1sts and 2nds, 4/4 ...		62 00
Hickory, 6/4 and 8/4, 1sts and 2nds		70 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $55 00		57 00
1¼-in. and 1½-in. x 8-in. & up	64 00	67 00
2-in. x 7-in. and up	65 00	68 00
No. 2 cuts 2 x 8-in. and up...	42 00	45 00
Pine good strips:		
1-in.	42 00	44 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	53 00	56 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	45 00
1-in. x 4-in. to 6-in.	32 00	34 00
1¼ in. and 1½-in.	53 00	55 00
2-in.	54 00	56 00
7-in. to 9 in. A sidings	27 00	30 00
Pine, No. 1 dressing sidings ...	35 00	38 00
Pine, No. 1 dressing strips	30 00	33 00
Pine, No. 1 dressing shorts....	28 00	30 00
Pine, 1-in. x 4-in. s.c. strips.....		30 00
Pine, 1-in. x 5-in. s.c. strips.....		31 00
Pine, 1-in. x 6-in. s.c. strips.....		33 00
Pine, 1-in. x 7-in. s.c. strips.....		30 00
Pine, 1 x 8 in., s.c., 12 ft. to 16 ft.		34 00
Pine, 1-in. x 10-in. M. R.		36 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	31 00	32 00
Pine, s.c. shorts, 1 x 4 to 6 in..	24 00	26 00
Pine, s.c. and bet., shorts 1 x 5		25 00
Pine, s.c. and bet., shorts, 1 x 6		27 00
Pine, s.c. shorts, 6'-11', 1"x10"		30 00
Pine box boards:		
1"x4" and up, 6'-11'		24 00
1"x3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	25 00	27 00
Pine, mill culls stock, 1 x 12 ..	28 00	30 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		22 00
O. culls r & w p	15 00	16 00
Red Pine, log run:		
mill culls out, 1-in.	26 00	28 00
mill culls out, 1¼-in.	26 00	28 00
mill culls out, 1½-in.	26 00	28 00
mill culls out, 2-in.	28 00	30 00
mill culls, white pine, 1"x7" and up	21 00	26 00
Mill run Spruce:		
1"x4" and up, 6'-11'	18 00	23 00
1"x4" and up, 12'-16'	26 00	27 00
1"x9"-10" and up, 12'-16' ..	27 00	33 00
1¼"x7"-8-9" and up, 12'-16'	27 00	33 00
1¼"x10" and up, 12'-16' ...	27 00	34 00
1½" & 2"x12" and up, 12'-16'		36 00
Spruce, 1-in. clear (fine dressing and B)		37 00
Hemlock, 1-in. cull	15 00	18 00
Hemlock, 1-in. log run	21 00	22 00
Hemlock, 2x4, 6, 8, 10, 12/16'..	23 00	26 00
Tamarac	19 00	20 00
Basswood, log run, dead culls out	22 00	24 00
Basswood, log run, mill culls out	23 00	26 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1¼, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$74 00
1 in., 8 in. and up wide	83 00
1¼ and 1½ in. and up wide	86 00
2 in. and up wide	88 00

Cuts and Better

4/4 x 8 and up No. 1 and better	58 00
6/4 x 8 and up No. 1 and better	70 00
8/4 x 8 and up No. 1 and better	72 00
6/4 x 6 and up No. 2 and better	61 00
8/4 x 6 and up No. 2 and better	63 00
6/4 x 6 and up No. 3 and better	55 00
8/4 x 6 and up No. 3 and better	59 00

No. 1 Cuts

1 in., 8 in. and up wide	50 00
1¼ in., 8 in. and up wide	59 00
1½ in., 8 in. and up wide	61 00
2 in., 8 in. and up wide	64 00
2½ and 3, 8 in. and up wide	84 00
4 in., 8 in. and up wide	90 00

No. 2 Cuts

1 in., 6 in. and up wide	36 00
1¼ in., 6 in. and up wide	47 00
1½ in., 6 in. and up wide	48 00
2 in., 6 in. and up wide	49 00
2½, 3 and 4 in., 6 in. and up wide ..	68 00

No. 3 Cuts

1 in., 6 in. and up wide	30 00
1¼ and 1½ in., 6 in. and up wide	35 00
2 in., 6 in. and up wide	36 00
2½, 3 and 4 in., 6 in. and up wide	45 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	29 00
1-in. x 5-in.	32 00
1-in. x 6-in.	30 00
1-in. x 8-in.	34 00
1-in. x 10-in.	36 00
1-in. x 12-in.	38 00
1-in. x 13-in. and up	38 00
1¼, 1½ and 2 in.	40 00

No. 1 Barn

1 inch	38 00	48 00
1¼, 1½ and 2-in.	45 00	51 00
2½ and 3-in.		55 00
4 inch		58 00

No. 2 Barn

1 inch	35 00	42 00
1¼, 1½ and 2-in.	38 00	44 00
2½ and 3-in.		46 00

No. 3 Barn

1 inch	32 00	36 00
No. 1, 1, 1¼, 1½, 2-in.		34 00

Box

No. 1, 1, 1¼, 1½, 2-in.	26 00	30 00
No. 2, 1¼, 1½, 2-in.		24 00

Mill Culls

Mill run culls, 1-in.	25 00
1, 1¼, 1½ and 2-in.	26 00
No. 2 ..... 20 00	22 00

Lath

No. 1, 32-in. pine	2 00
No. 2, 48-in. pine	5 00
No. 1, 48-in. pine	5 50
No. 3, 48-in. pine	4 50
Hemlock Lath, 48-in.....	4 50

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

S. 1 S. and 1 E.

Dimension.	6 ft.	8 ft.	10 ft. 14 & 16 ft.	
2 x 4, 6, 8 ..	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.

2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 4 6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12, 8 16 ft.	28 50
2 x 10 and 2 x 12, 18, 20, 22 ft. ...	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50

No. 1 Common Boards.

4 inch	23 00
6 inch	25 50
8, 10, 12 inch	27 50
Mixed widths	26 50

Flooring.

4 or 6 inch No 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	26 00

Shiplap—Finished.

6 inch	24 00
8, 10 and 12 inch	25 00

Siding.

6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00

Lath.

No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed) ...	4 50

PINE—ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 16
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8 16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft. ...	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft. ..	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft. ..	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft. ..	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft. ..	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft. ..	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	37 00
Nos 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in. F. G.	30 00
Nos. 1 and 2, 1 x 6 in., F G.	35 00
No. 3, 1 x 4 in.	28 00
No. 3, 1 x 6 in.	33 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ⅜ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers, 4/4 .....$100 00	
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	38 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	38 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 52)

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What would it cost you annually if you only lost one minute per man per shift each day—4 shifts--4 minutes???

Prices from $135.00 up

When you arrive at YOUR answer to this vital question you will have a most eloquent recommendation for the International.

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No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	36 - 38	23 - 25	14 - 16
5/4 to 8/4	42 - 45	28 - 30	16 - 18
10/4 to 16/4	48 - 52	33 - 35	20 - 22

RED BIRCH

4/4	50 - 52	30 - 21	18 - 20
5/4 to 8/4	54 - 56	32 - 34	18 - 20

SAP BIRCH

4/4	45 - 47	30 - 32	18 - 20
5/4 and up	50 - 52	32 - 34	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	38 - 40	28 - 30	18 - 20
Thicker	40 - 42	30 - 32	20 - 22

PLAIN OAK

4/4	52 - 54	33 - 35	19 - 21
5/4 to 8/4	51 - 53	29 - 31	17 - 19

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	56 - 58	31 - 33	18 - 20
10/4 and up	69 - 81	43 - 45	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in..	109 00
Selects, 1 to 2 in.	104 00
Fine common, 1 in.	74 00
Fine common, 1¼ to 2 in.	81 00 83 00
No. 1 Cuts, 1 in.	59 00
No. 1 Cuts, 1¼ to 2 in.	69 00 74 00
No 2 Cuts, 1 in.	42 00
No. 2 Cuts, 1¼ to 2 in.	54 00 61 00
Barn Boards, No. 1, 1 x 12	56 00
No. 1, 1 x 10	47 00
No. 1, 1 x 8	44 00
No. 2, 1 x 12	49 00
No. 2, 1 x 10	45 00
No. 2, 1 x 8	42 00
No. 3, 1 x 12	40 00
No. 3, 1 x 10	38 00
No. 3, 1 x 8	37 00
Canadian spruce boards	27 00 40 00
Spruce, 12 in. dimension	39 00
Spruce, 10 in. dimension	38 00
Spruce, 9 in.	37 00
Spruce, 8 in. under dimen.	36 00
10 and 12 in. random lengths, 8 ft. and up	38 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7	31 00
3 x 4 and 4 x 4 in.	32 00
2 x 8 in.	34 00
All other random lengths, 7-in. and under, 8 ft. and up	30 00 31 00
5-inch and up merchantable boards, 8 ft. and up, p 1s..	28 00 30 00
1 x 2	27 50
1 x 3	26 00
1⅜-in. spruce laths	5 50
1½-in. spruce laths	4 75

New Brunswick Cedar Shingles

Extras		5 00
Clears		4 65
Second Clears		2 90
Clear whites		2 40
Extra 1s (Clear whites in)	1 75	2 25
Extra 1s (Clear whites out)	1 65	1 90
Red Cedar Extras, 16-in. 5 butts to 2-in.		5 25
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		5 40
Red Cedar Perfections, 5 butts to 2¼		6 50
Washington 16-in. 5 butts to 2-in. extra red cedar		4 75

A Very Unusual Letter

A short time ago the following letter arrived from one of our branch managers:

* * * * * * * * * * * * *

"As I could not understand how this could be, I called upon them, and was taken into their shop, where I found that they had a 40-inch Planing Mill Exhauster that had been installed in their plant when it was built, about 50 years ago. This has been run ever since, and is in excellent condition.

"A year ago last spring this plant was under several feet of water for almost two weeks. Grit got into the bearings, and they had to be re-babbitted. This has been the only repair necessary since the fan was put into service.

"It is a very old fan, with a cast iron shell, and has an exceptionally strong suction."

What better advertisement is there for Sturtevant Fans? Today Sturtevant Fans are made just as well as the one above which was shipped in 1866.

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Toronto Vancouver

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H. W. BLANCHARD, Treas.

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Eastern Spruce
Hemlock
Pine
Shingles
and
Lath

Owing to constantly increasing sales we are anxious to establish new connections with Eastern Spruce mills, for shipment by car to Boston and New York markets, or by canal boat from Quebec to New York.

We also desire more connections with manufacturers of British Columbia red cedar shingles and cedar siding.

We will buy outright or sell on a 5 per cent. commission.

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Red
Cedar Shingles
Hard Pine
Maple
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We manufacture Spruce at our own Mills at Portage, Maine, U. S. A., and therefore we know what big prices mean to the manufacturer

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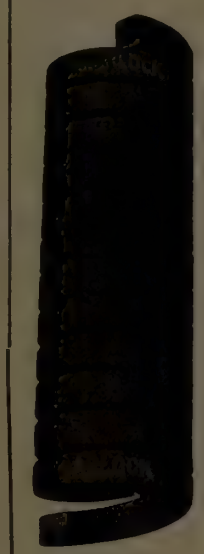
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(Continued on page 58)

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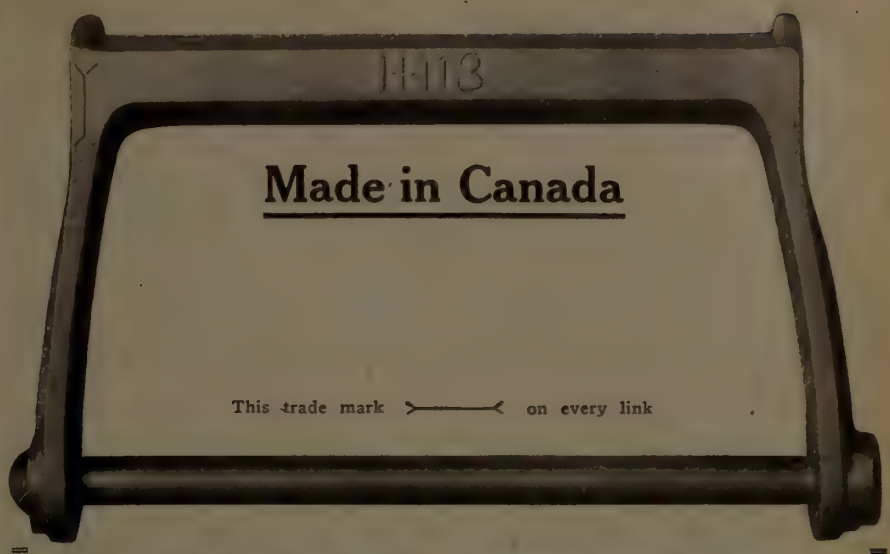

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IS reliable in lumber mill service. H-110 has broad bearing surfaces on the bottom of the trough, to stand the wear of dragging. The end bar has a straight front to act as a pusher, and to prevent the tendency to ride up on the material.

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(Continued on page 60)

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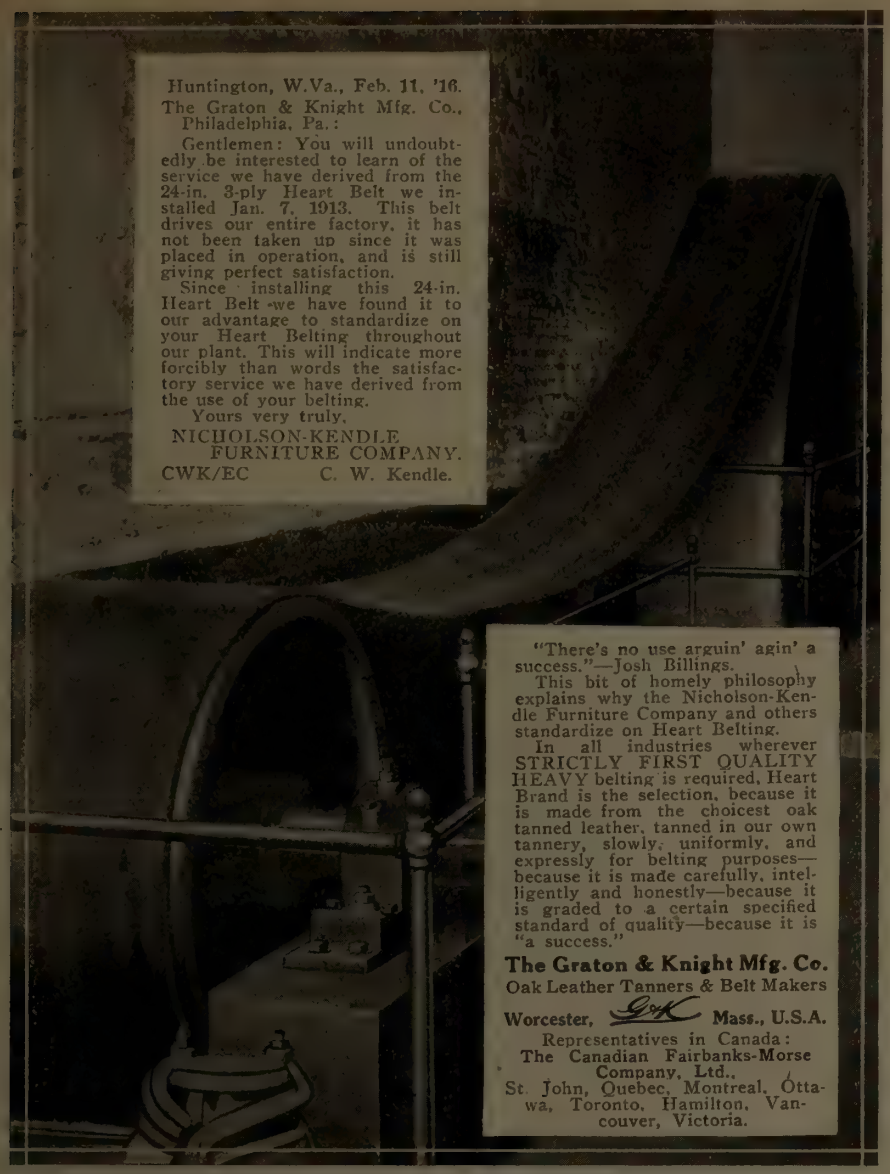

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Gentlemen: You will undoubtedly be interested to learn of the service we have derived from the 24-in. 3-ply Heart Belt we installed Jan. 7, 1913. This belt drives our entire factory, it has not been taken up since it was placed in operation, and is still giving perfect satisfaction.

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if it fails to give satisfaction. More likely than not you have been using the wrong kind for your particular purpose. A firebrick intended for use in a small hand-fired boiler may not give the same result if used under high pressure boiler with mechanical stoker.

So when sending us your enquiries be sure to specify for what purpose these brick are to be used.

You are sure then of a high quality brick, that is absolutely the best for your purpose.

We Manufacture the Following Well Known Brands

"Elkco Special," "Elk Steel," "St. Marys," "Keystone" and "Rotex"

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Among the details of this sturdy high capacity edger we may mention:—

The two main frames supporting the bearings are built so as to be stiff and rigid, and are well braced with cast iron tie-plates. It is designed for portable or small stationary sawmills. By a slight change this machine can be made right or left hand to suit mill.

The arbor is 2½ inches in diameter, and made of the best machine steel. The drive pulley is 10 inches in diameter and 8½ inches face.

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Saws used are 16 inches in diameter, and will cut stock 5 inches thick. Machine is fitted with collars for two saws—one stationary and one movable.

The saw shifter casting has a long bearing on the sliding rod, which makes it shift easy. There is a lever jaw casting supplied to connect to saw shifter.

When overhauling your mill ask us about repair parts or new equipment.

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Orillia - Ontario

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You can put a 6-in. cant through this edger and know that it will come through edged to a hair. Edger carries 22-in. saws, 6-in. saw collars, leaving 7-in. clear saw blade, more than enough margin for 6-in. stock

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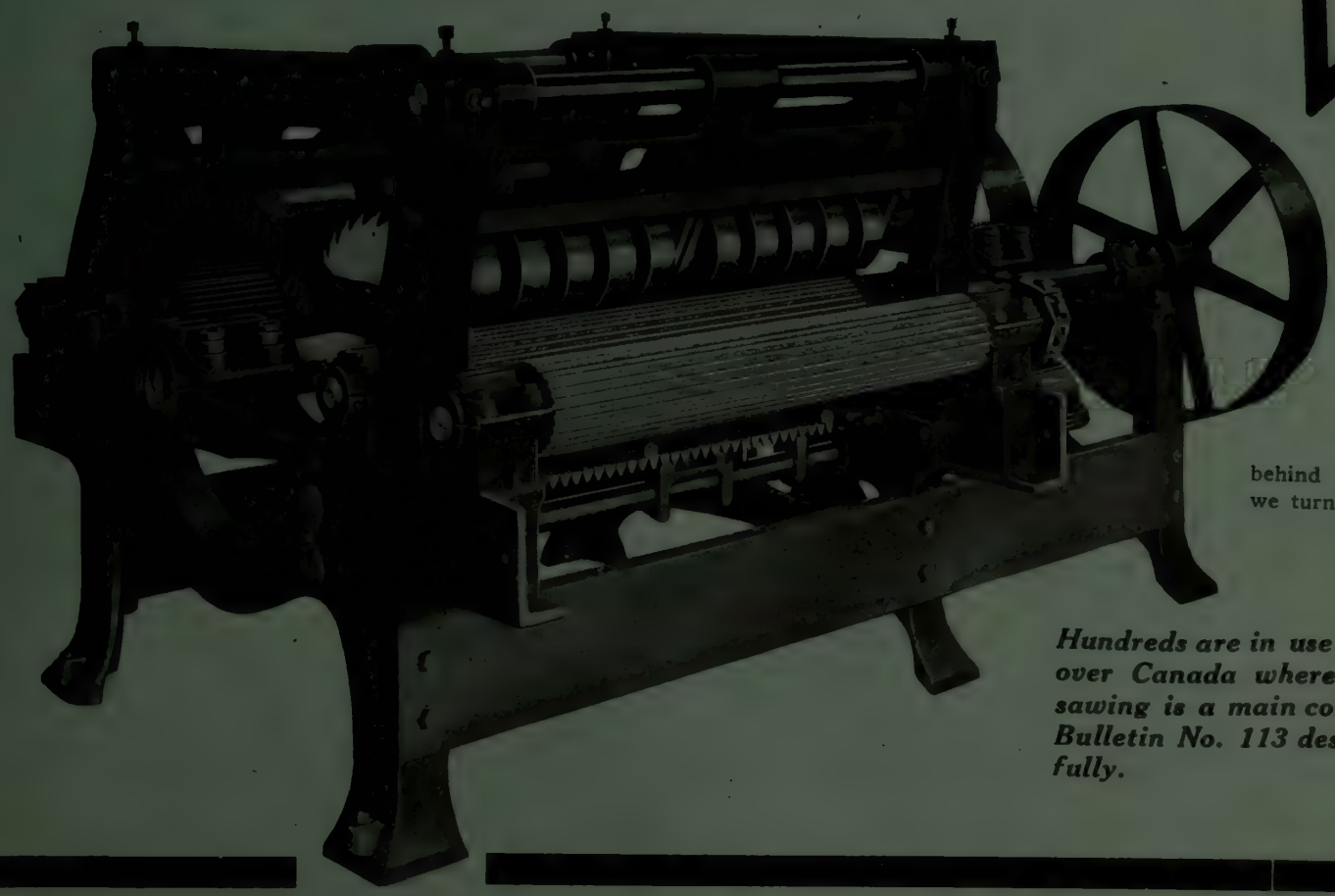
We build up-to-date Machinery for Sawmills of every capacity—circular or band

Catalogues on request

WATEROUS NEW CHAMPION EDGERS

are built with 40", 48", 56", 60" and 72" opening. They carry as many as four movable and two stationary saws without difficulty.

These edgers cut true and to dimension at all times. The guides are rigid and cannot shift in the cut. They are crowded to correct position and held immovably in place by a steel setting gauge that drops upon them. *No other edger has this feature.*



Waterous New Champion Edgers are fast and accurate cutting, easily operated, and perfectly safe. We stand behind every machine we turn out.

Hundreds are in use in mills all over Canada where quality of sawing is a main consideration. Bulletin No. 113 describes them fully.

The Waterous Engine Works Co., Ltd., Brantford, Canada

"FROST KING" METAL

$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

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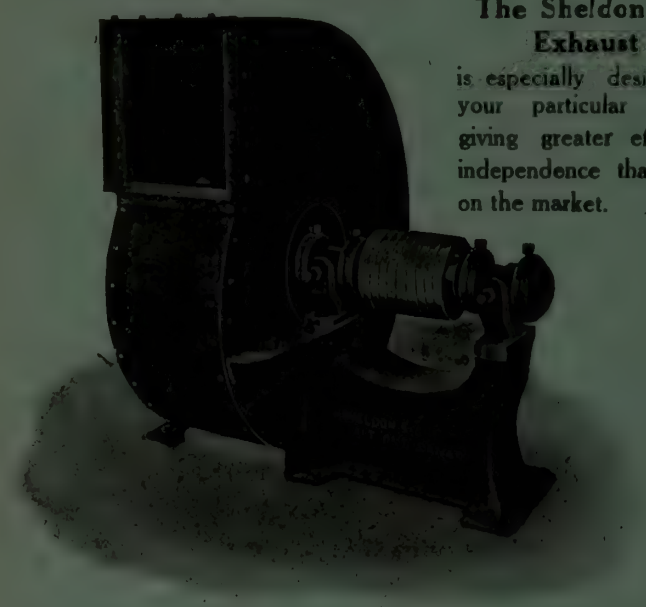
Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

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Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.

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The J. C. McLaren Belting Co.

Limited

General Mill Supplies MONTREAL

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

Vol. 37 Toronto, June 1, 1917 No. 11

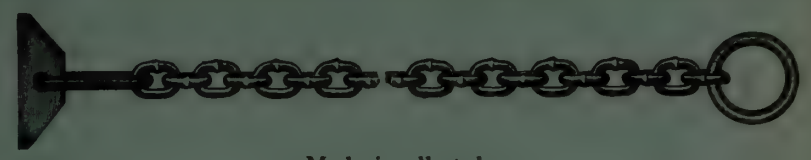
Canada Lumberman & Wood Worker

BRONZE MEETS BRONZE AT THE JOINT

DART UNION PIPE COUPLINGS CANNOT LOOSEN UP AND LEAK because there is nothing at the joint that can deteriorate and the heavy iron parts will not stretch or pull apart.

YOUR JOBBER SELLS THEM

PERMANENT UNION EFFICIENCY



Made in all styles

Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

YOU CAN SAVE 15 TO 50% POWER COST

in your exhaust systems for conveying and removing Shavings, Sawdust, Bark, etc., by using

"CANADIAN"

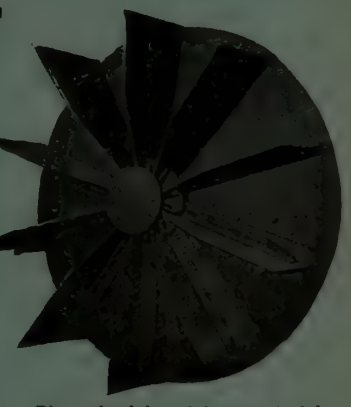
Slow Speed Mill Exhausters

Facts are facts. Ask the users—and there are hundreds of them—what they think of the investment. Then you will use a "Canadian" on your next job.

Canadian Blower and Forge Co., Limited

KITCHENER, ONT.

St. John Montreal Toronto Winnipeg Vancouver



Blast wheel for stringy material.

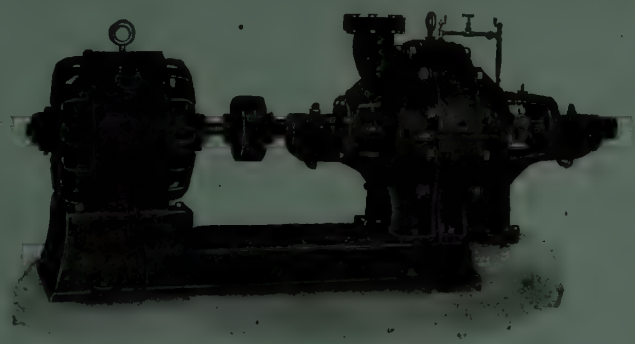
ASBESTOS

We manufacture practically every article that can be made of Asbestos—including

Asbestos { Packings, Boiler Gaskets, Pipe and Boiler Coverings

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)



PUMPS

for every Service

TRY US!

The Smart-Turner Machine Co., Limited

HAMILTON, CANADA

Morrison's "BEAVER" Valves

For high pressure steam uses our "Beaver" valves will fill every requirement perfectly. "Beaver" Globe Valves, Check Valves, Angle Valves, and Cross Valves are made in sizes 1½-inch to 3-inch, all bronze, and sizes 2½-inch to 10-inch iron or semi-steel body, bronze mounted. The Angle Valve illustrated is constructed with outlet under level of seat, leaving no pocket where water may lodge when valve is closed. Can be furnished in stop or adjustable check pattern. Write for complete description and prices of "Beaver" Valves and any of our lines of Brass Goods.

The James Morrison Brass Mfg. Co., Limited

93-97 Adelaide Street West, TORONTO

Beaver Angle Valves
MADE IN CANADA

Alphabetical Index to Advertisers, Page 54 Classified Directory to Advertisements, Page 60

The "Famous Five" files stand the wear and tear of machine shop work

They are made from high carbon steel.

The cutting machines are mathematically accurate both as to the number and the depth of the teeth.

The hardening of the file after cutting is done to a fixed standard which insures its remaining hard and sharp for the longest time when in use.

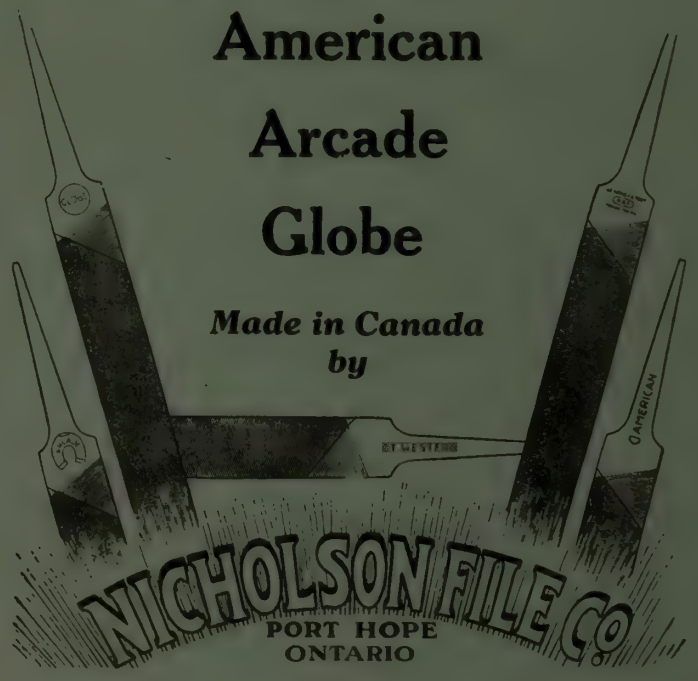
The "Famous Five" files are standard tools everywhere.

Specify them when ordering

They are:

Kearney & Foot
Great Western
American
Arcade
Globe

Made in Canada by



FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
1 Wood Machine for 22-in. wood.
1 Edger for ripping dry lumber, installed.
1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

The Parry Sound Lumber Co. Limited

26 Ernest Ave.

Toronto, Canada

Specials in Dry Stock

Merchantable Spruce

2x4x10/16	50 M ft.
2x5x "	60 M ft.
2x7x "	100 M ft.

Merchantable Hemlock

1x 9x10/16	40 M ft.
1x10x "	100 M ft.
2x10x "	75 M ft.
2x12x "	37 M ft.

5th Quality Spruce

3 x 5 and up x 6/16 — 150 M ft.

Bartram & Ball Limited

WHOLESALE LUMBER

Drummond Bldg. - Montreal, Que.

British Columbia Forest Products

Having been actively connected with the manufacturing and selling of B.C. Lumber and Timber for ten years, and with connections among the best on the Pacific Coast, we are in a position to place your orders to assure the best of service and quality.

We have the following cars in transit:—

2 cars mouldings, assorted B. C. Fir.
2 cars casing and base B. C. Fir.
5 cars 1 x 4 B. C. Fir Ceiling, Kiln Dried.
3 cars 1 x 3 B. C. Fir Ceiling, Kiln Dried.
1 car 1 x 3 B. C. Fir Edge Grain Flooring, Kiln Dried.
2 cars 1 x 3 B. C. Fir Mixed Flooring and Ceiling.
2 cars 18-in. Shingles.
2 cars 5/8 x 4 B. C. Fir Ceiling.
1 car No. 3 Ceiling, B. C. Fir.
10 cars timbers, all sizes and lengths.

WE MAKE A SPECIALTY OF HEAVY TIMBERS, SHIP DECKING AND PLANKING

KNOX BROTHERS, Drummond Building, 511 St. Catherine St., Montreal, Que.

VANCOUVER OFFICE: PACIFIC BLDG., VANCOUVER, B.C.

SPECIALISTS IN BRITISH COLUMBIA FOREST PRODUCTS

Sole representatives of The Victoria Lumber & Manufacturing Company, Ltd., in Eastern Ontario, Quebec and Maritime Provinces.

TRY OUR TIMBERS

ESTABLISHED 1888

We carefully selected our timber thirty years ago, when we could secure the best forest areas in British Columbia. This is the explanation of our ability to supply whatever size and grade the market may require.

We still own in fee simple over 3,000,000,000 feet of B. C. Douglas fir, cedar, hemlock and spruce timber. We will be in business another half century manufacturing this timber for Canadian consumers; therefore, we shall treat your trade as something of permanent value to us.

We have been 28 years in lumber manufacturing in British Columbia and have stood behind every contract. Look up our record.

Yours very truly,

The Victoria Lumber & Mfg. Co., Ltd.

Head Office and Mill - CHEMAINUS, B.C.

***Eastern Sales Office*—Traders Bank Bldg., TORONTO, ONT.** **R. G. CHESBRO, Rep.**

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

LOOK—

for immediate shipment from our siding in Hamilton.

CAN LOAD MIXED CARS

NORWAY PINE

1 car 2 x10—20.
1 car 2 x 10—18.
2 cars 2 x 8—18.
1 car 2 x 8—20.
1 car 2 x 8—16.
1 car 2 x 8—12 and 14.
12,000 ft. 2 x 6—20.
10,000 ft. 2 x 6—18.
30,000 ft. 2 x 6—16.
1 car 2 x 5—10 to 16.

WHITE PINE

1 car 4 x 6 and wider.
1 car 6 x 6 and up.
1 car 3 x 6 and up.
1 car 6/4 Pattern Stock.
1 car 1 x 4 and up No. 2 Pine Culls.

YELLOW PINE

60,000 ft. 3 x 6—10.
1 car 3 x 6—14.

SPRUCE

1 car 3 x 6—10 to 16.
1 car 2 x 4—10 to 16.
1 car 4 x 4—10 to 16.
1 car 3 x 4—10 to 16.
1 car 2 x 4 and up No. 2 Spruce.

The Long Lumber Company

Hamilton, Ont.

Rubber Goods FOR LUMBERMEN

Belting Our long experience in the making of Rubber Belts enables us to specialize on this line. "P.M.S.," "Special Drive" and "Lion" are our leading brands for power transmission.

Packings "Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable.

Hose for Steam, Water, etc., in various grades, made especially to give satisfactory and economical service under different conditions.

Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion.

Gutta Percha & Rubber, Limited

TORONTO MONTREAL WINNIPEG REGINA SASKATOON CALGARY EDMONTON VANCOUVER

George Gordon & Co.

Limited

Cache Bay - Ont.

Manufacturers of

RED and WHITE PINE

PLANING MILL DRY KILN

Saw and Knife Fitting Machinery and Tools

SAW

Anvils
Brazing Clamps
Brazing Compound
Filers
Filing Clamps
Forges
Gummers
Hammers
Lap Cutters
Lap Grinders
Levelling Blocks
Pulleys
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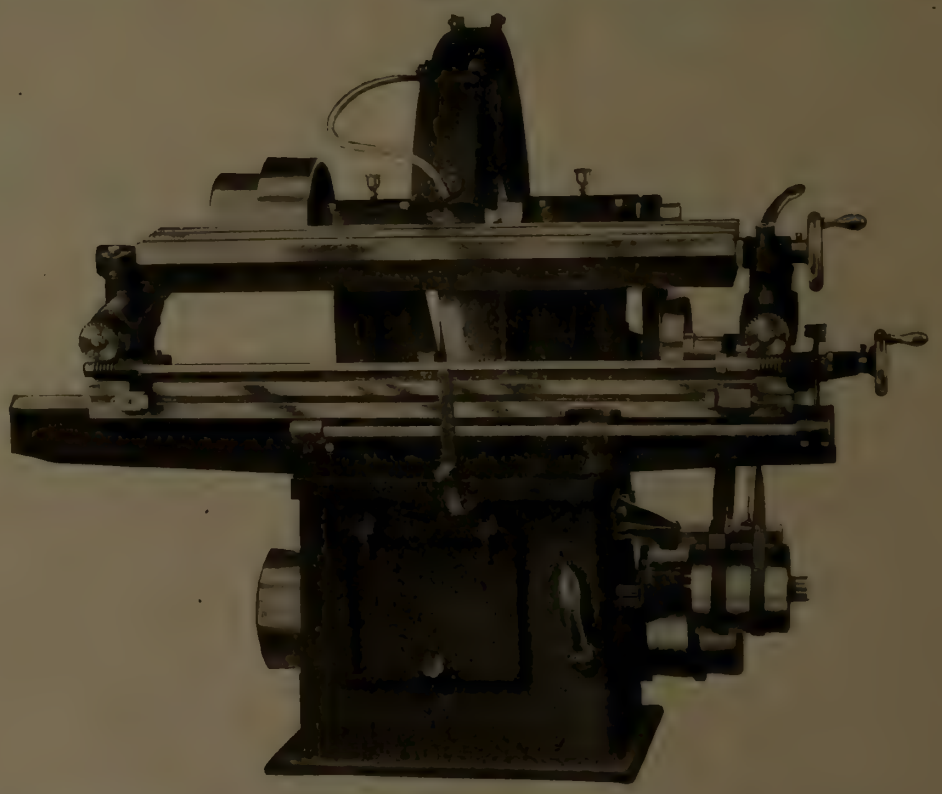
Shapers
Sharpeners
Solder



Straight Edges
Stretchers
Swages
Tension Gauges
Tools

Bandwheel Cutter and Tool Grinders

Knife Grinders and Balances

Describe your requirements. Catalog with special information furnished on request.

Machinery Company of America Grand Rapids, Mich., U.S.A.

"COVEL"—"HANCHETT"—"B.T.&B." Machinery

Fraser Bryson Lumber Co., Ltd.

Office, Castle Building 53 Queen St. Ottawa, Can.

Wholesale Lumber Dealers and Selling Agents for

Fraser & Co.

Mills at

DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

COMPLETE STOCKS

The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1″, 2″ and 3″ to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson

Chapleau, Ontario

Long Leaf Yellow Pine, Louisiana Red Cypress

Annual Capacity 350,000,000 Feet Yellow Pine
50,000,000 Feet Red Cypress

Nature's best in forest products

LET US QUOTE YOU PRICES

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

CHICAGO LUMBER & COAL COMPANY

Manufacturers

General Offices: EAST ST. LOUIS, ILLS.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask LOUIS WUICHET

Room 716 Railway Exchange, CHICAGO, ILLINOIS

BASS WOOD

We offer for immediate shipment—
1″ and 1½″ Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—
1 x 8½″ 1 x 9″ and wider
1 x 6 and 7″ 1½″ to 4″

SPRUCE BASSWOOD
ASH HEMLOCK and PINE

HART & McDONAGH

513 Continental Life Bldg.
Phone Main 2262

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Watson & Todd Limited
OTTAWA

RED PINE WHITE PINE
SPRUCE

SEND US YOUR ENQUIRIES

The
Harris Tie & Timber Co.
Ottawa - Canada

Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

Let us quote on your requirements for
Spruce and Pine Lumber

W.H.MILLER CO LIMITED EXTRA CAMPBELLTON,N.B.
W.H.MILLER CO LIMITED CLEAR CAMPBELLTON,N.B.
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We manufacture and export all kinds of it.

WE ALSO MANUFACTURE
LATHS and TIES
PULPWOOD

Shipments by rail and water
Prompt--reliable--carefully handled

We Specialize in
New Brunswick White Cedar Shingles
LET US QUOTE YOU

W. H. Miller Co., Limited
Campbellton, N.B.

Wilfrid H. Pauzé
LUMBER MERCHANT—SASH and DOORS
The
Largest Eastern Warehouse of British Columbia Products

I can supply at short notice mixed carloads of

Fir Doors, Columns, Mouldings, Red Cedar Clapboards and Shingles, Fir V-Joint Sheeting, Flooring

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Cincinnati, Ohio

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— SPECIALTIES —
TIMBER - DIMENSION - FINISH
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Milne, Hall & Johns Co., Inc.
502-3-4 Gerke Bldg. CINCINNATI, OHIO
Manufacturers of
Hardwood Lumber
OAK WAGON STOCK
Our Specialty

750,000 ft. Thick Oak Plank in stock, 2 inch to 5 inch thickness. Quick shipment can be made.
Send us you requirements and we will quote delivered prices.

RIGHT GRADES
QUICK SHIPMENTS

Canadian Western Lumber Co.

FRASER MILLS, B.C.

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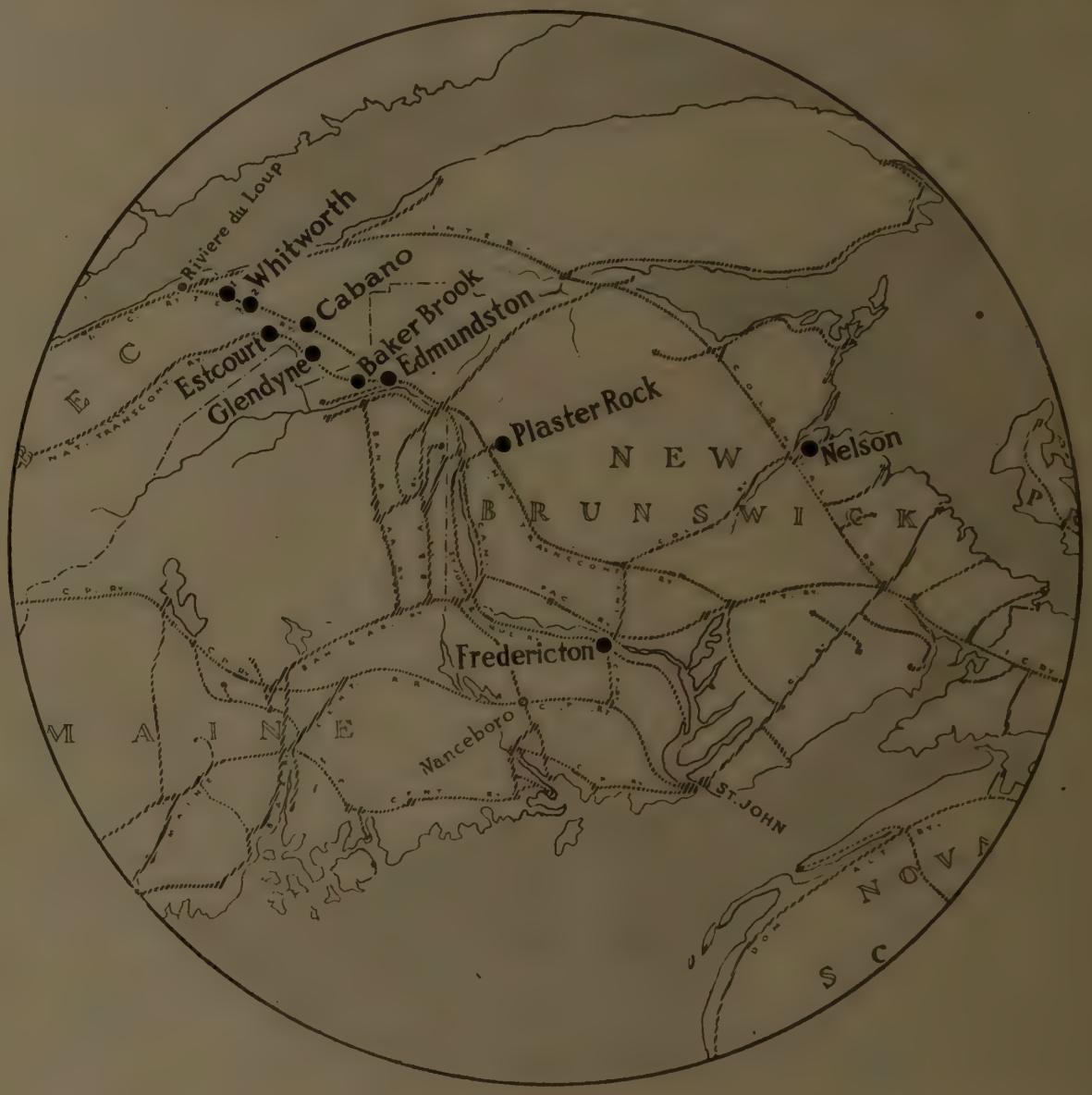
A. Montgomery

SASKATCHEWAN
E. M. Simonson

MANITOBA
Brandon—G. D. Cookson
Winnipeg—H. W. Dickey

Ten Band Mills to Serve You



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Fredericton, N.B.	Railway connection		C. P. R.
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Nelson, N.B.	"	"	I. C. R.
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Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

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ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

Dressed and Rough Spruce, White Pine and Banksian Pine

We make a specialty of transit dressing, re-sawing and ripping lumber in transit at our mills in La Tuque, P. Q., located on the Canadian Northern and Transcontinental Railroads.

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Sales Office: - - - PORTLAND, MAINE

Plant of The Stearns Salt and Lumber Co.

Stearns Quality

Michigan Forest Products

Hardwood, Hemlock, White Pine

LUMBER and TIMBER

40 Million Feet Dry Stock in pile containing a complete assortment for rush shipment.

Grades— GUARANTEED —Quality

Hardwood Specialists

The **Stearns Salt & Lumber Co.**

Ludington, Mich.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at—Nashville, Tenn. Basic, Va. *Mills at*—Sumter, S.C. Winchester, Idaho

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

WISTAR, UNDERHILL & NIXON

Real Estate Trust Bldg., Philadelphia, Pa.

New **RAILS** Relaying

12 to 80 pounds per yard.

LOGGING CARS

Jno. J. Gartshore

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The Rat Portage Lumber Co., Limited, Vancouver

MANUFACTURERS OF

Douglas Fir, Spruce, Cedar and Hemlock Lumber

Rough Timbers, Dimension, Flooring, Ceiling, Siding, Interior and Exterior Finish of all kinds including Mouldings. Fir, Spruce and Cedar Lath

Prompt shipment of Fir timbers in all sizes and up to 80 feet in length

AIR DRIED CEDAR SHINGLES We specialize in supplying air dried Cedar Shingles, these cost more than kiln dried Shingles but make a better roof and last much longer

JOHN McKERGOW, President — W. K. GRAFFTRY, Managing-Director

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Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W

James P. Grant — John K. Campbell

Grant & Campbell

Manufacturers of

SPRUCE, HEMLOCK TIMBERS AND PILING AND LATH

Prices promptly given on all enquiries.

New Glasgow, N. S.

HARDWOOD

Spruce, Pine, Hemlock,

Lath and Shingles

Crating Lumber a Specialty

JAMES R. SUMMERS

Wholesale Lumber Merchant,

95 King St. East TORONTO

Lath Wanted

We are Buyers of

ALL GRADES

WHITE PINE, SPRUCE and HEMLOCK LATH

Will contract for entire output and pay spot cash

Send full particulars as to grade, quantity and prices

FRED. J. STONE

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Veterinary Wonder Remedies

10,000 one dollar ($1.00) bottles Free to horsemen who give the Wonder a fair trial. Guaranteed for Colic, Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 25c for Mailing Package, etc. Agents wanted. Write your address plainly. DR. BELL, V.S., Kingston, Ont.

BOX SHOOK WIRE

Wire tied box shooks can be handled more easily, more economically and with the safe assurance that wire will not break. Write for Quotations.

LAIDLAW BALE-TIE CO., Ltd.

HAMILTON, ONT.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE &
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

LUMBER

When in the market for

White or Red Pine

or for

Ontario Hardwoods

Let Us Quote You

SPECIAL !

200 M' Good Cedar Squares

8 x 8—10/16

8 x 10— "

10 x 10— "

10 x 12— "

We are ready to contract for Output of Mills in any Ontario Soft or Hardwoods. Highest cash prices paid, and would advance money for operations.

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

705 Excelsior Life Building

Toronto

FOR SALE

75,000 ft. 1 in., 1¼ in., and 4 in. Birch, log run, mill culls out.

Good dry stock, 1915-16 sawing.

750,000 ft. 3 in. Spruce, 1917 sawing.

Prices on application:—

Thos. Harling & Son

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5-10

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Room 38 9

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HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway, Yellow Pine, Hemlock Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.

Yellow Pine Timber a Specialty.

Interior Trim Mill Work

NIAGARA FALLS, N.Y.

WHOLESALE DEALERS

Eastern and Southern Lumber

We are at all times in the market for dry

WHITE PINE, DIMENSION SPRUCE, SPRUCE BOARDS, HEMLOCK BOARDS, LATH and CLAPBOARDS.

Advise us of your Market Prices and Stocks

A. H. Richardson Lumber Co.

176 Federal Street, BOSTON, MASS.

Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion

"SALADA"

Send for samples and prices.

SALADA TEA CO. TORONTO

SPECIALTIES

Sawed Hemlock

Red Cedar Shingles

White Pine Lath

Bass and Poplar Siding

James Gillespie

Pine and Hardwood

Lumber

Lath and Shingles

North Tonawanda, N.Y.

Efficiency Demands

Exact knowledge of where your lumber is and how much it runs to the acre in every spot. Our Density Plans show it. Operators are enthusiastic about them. Write for a sample.

JAMES W. SEWALL
OLD TOWN, - MAINE

PRESSES

Hydraulic and Screw
for
VENEER
VENEER DRYERS
PULP
Special machinery made to order
WILLIAM R. PERRIN
TORONTO, CANADA Limited

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Appraisal of timber lands, timber maps, logging efficiency reports, planting. Maximum of accuracy in minimum time and at minimum expense.
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Cable Address: Farnworth, Liverpool
WOOD BROKERS and MEASURERS
2 Dale Street, Liverpool, and Seaforth Road, Seaforth, Liverpool, England

WE ARE BUYERS OF
Hardwood Lumber
Handles
Staves Hoops
Headings
James **WEBSTER** & Bro.
Limited
Bootle, Liverpool, England
London Office
Dashwood House 9 New Broad St. E. C.

"Well Bought is Half Sold"

FOR QUICK SALE

we offer these

"SNAPPY SPECIALS"

2 cars 1 x 4 and up No. 2 common and better ash.
2 cars 1 x 4 and up No. 2 common and better Elm.
1 car 1 x 4 and up No. 3 common elm.
1 car 6/4 x 4 and up No. 1 common and better Elm.
3 cars 1 x 4 and up No. 1 common and better birch.
5 cars 1 x 4 and up No. 2 common birch.
2 cars 3 in. sound birch hearts.
½ car 4 in. sound birch hearts.
1 car 4 x 6 sound birch hearts.
3 cars 8/4 No. 1, 2 and 3 shop white pine.
3 cars 5/8 x 3 and up 6/16 ft. merch. spruce.
3 cars 1 x 3 6/16 ft. spruce crating.
2 cars 1 x 4 and up 6/16 ft. spruce crating.

Send Us Your Inquiries for :
Lath
Shingles
Cedar Posts

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine
Hemlock
Hardwood
LUMBER

712-20 Traders Bank Bldg., **Toronto, Ont.**
Mills : Byng Inlet, Ont.

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MONTHLY LIST
of
NEW and USED
WOOD TOOLS
for Immediate Delivery

Band Saws
42" Fay & Egan power feed.
36" Crescent pedestal.
28" Ballantine, bracket.
26" Crescent pedestal (2).
20" Crescent pedestal (2).

Saw Tables
Crescent, with rip and cut-off fence
Crescent universal cut-off gauge
No. 5 Crescent, sliding top.
Ballantine variable power feed.
Fisher, iron frame rip
12' Defiance automatic cut-off.
MacGregor Gourlay power feed cut-off
Champion combination wood top.
7½' iron frame swing.
6½' Williams wood frame swing.
6' Crescent iron frame swing.
5½' Crescent swing.
3' x 4' MacGregor Gourlay.

Planers
30" Whitney pattern single surfacer.
26" revolving bed double surfacer.
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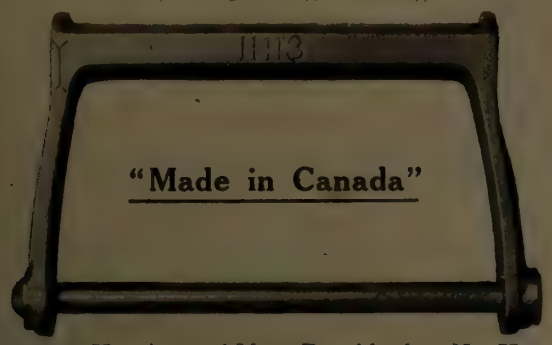

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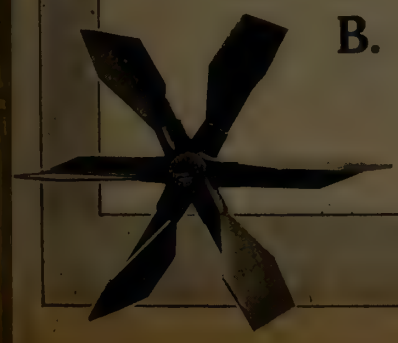

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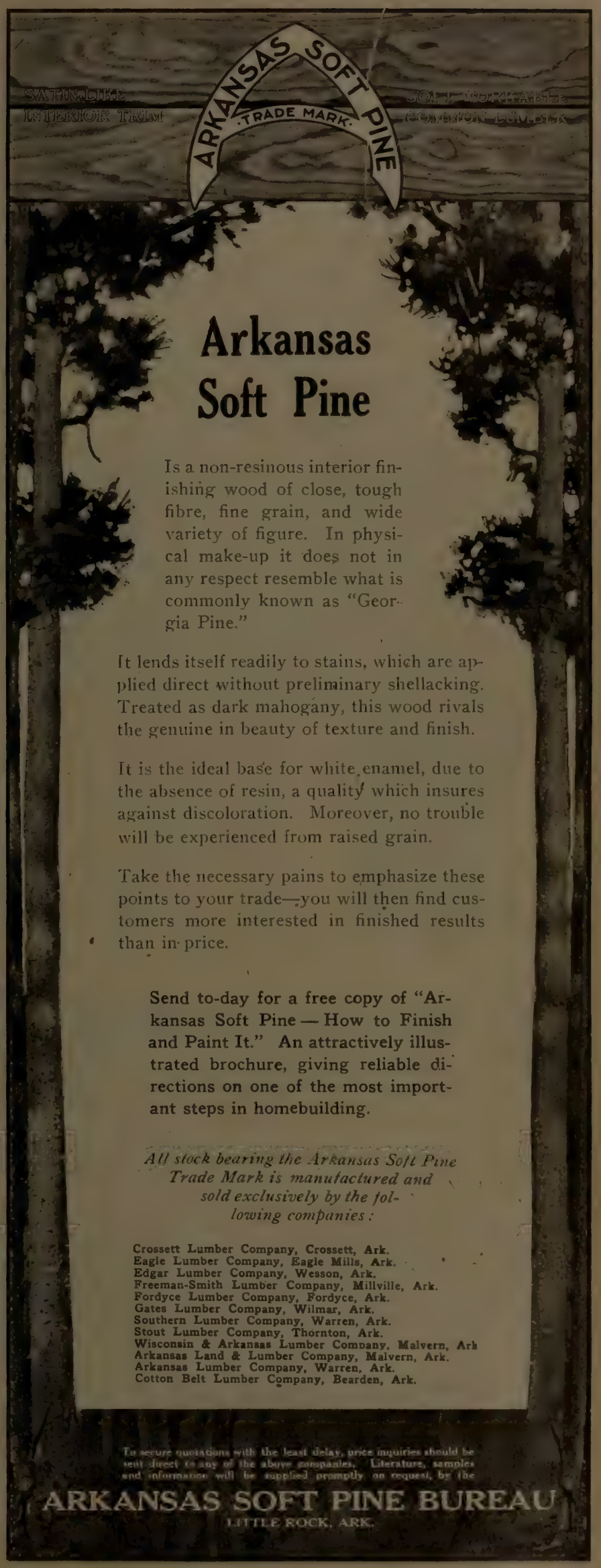

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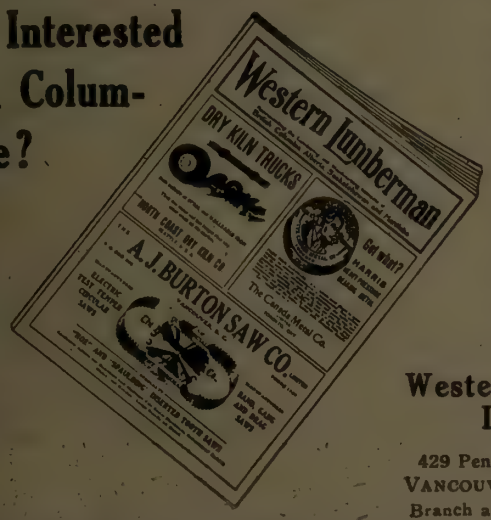

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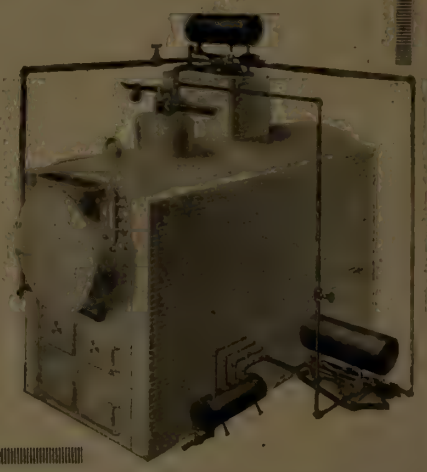

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The Machine that will convert your small logs into more and better lumber, quicker than ever before.

The illustration shows the latest design of gang circular, patented by Mr. I. N. Kendall, the well-known millwright, of Ottawa. The machine illustrated takes 16 26 in. diam. 10 gauge saws—will cut cants up to 8 inches in thickness, and we furnish with it necessary saw collars for any thickness of lumber desired. It has a hollow mandrel, water-cooled saws; each saw has a separate guide; easily accessible and readily adjustable, and the bridgetree is so designed that it can be removed, the saws taken off, and a new set put on in 7 to 10 minutes. Safety fingers hung just inside the front press roll prevent a cant flying back off the saws. Lumber cut on these machines is guaranteed to come out absolutely true to size from end to end and so smooth that 1-16 in. oversize is all the allowance necessary.

We are the original manufacturers of these machines.

Each size of machine embodies the very latest improvements and patents, and is the last word in "Kendall" Gangs. They are built by expert workmen with ten years' experience in what these machines can and will do. We make these machines in three sizes, as follows:

26-in. saws for 8-in. cants, as illustrated.
30-in. saws for 10-in. cants.
36-in. saws for 12-in. cants.

OUR list of satisfied users will be sent upon request.

We also make a complete line of twin circulars, with chain or steam feed for slabbing logs for these machines.

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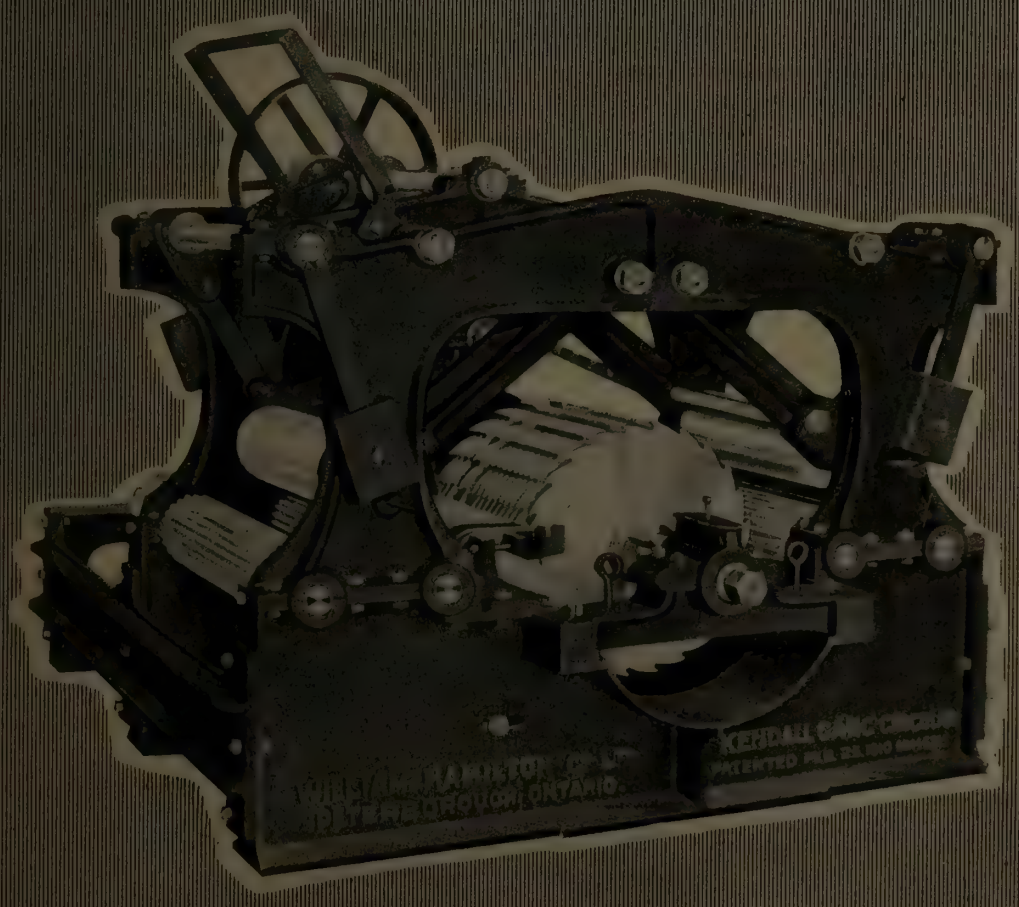

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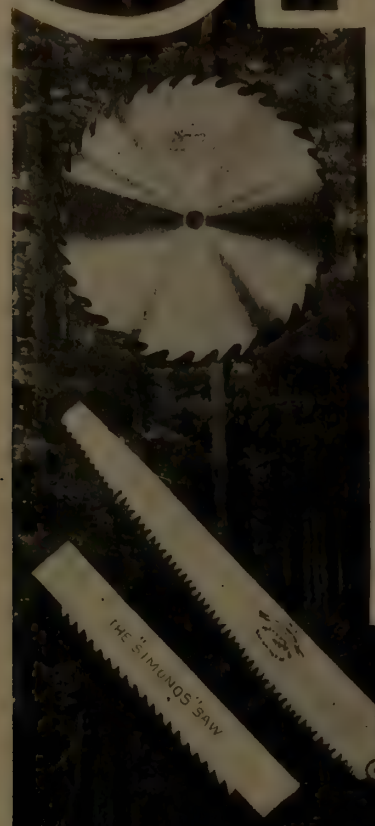

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Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster-General for Canada, for transmission as second-class matter.

Entered as second-class matter July 18th, 1914, at the Postoffice at Buffalo, N.Y., under the Act of Congress of March 3, 1879.

Vol. 37 **Toronto, June 1, 1917** **No. 11**

Is Canada British?—Enforce Conscription and Find Out

The announcement of Premier Borden that he will authorize the raising of the necessary recruits, by conscription, to keep Canadian battalions in France at least up to present strength, is receiving, without doubt, the hearty approval of the vast majority of Canadian citizens. The most unsatisfactory and distressing feature of recruiting methods in the past has been the unfair distribution of responsibility and sacrifice which the voluntary system involves, both individually as citizens and collectively as provinces. The next most important objection to the voluntary system is its inefficiency, partly due to wasted energy in obtaining recruits, partly to injudicious allocation of the men after they have been secured.

We heartily support this latest announcement of the Premier, and trust he will not lose a single day in forcing the matter to its final conclusion. It will be a tremendous disappointment to the majority if he allows himself to be deterred and delayed by the opposition which is developing in certain quarters. We do not believe this opposition has any substantial basis in fact. However, if it has, so much the more reason for forcing the issue that we may know who and where the enemies of the Empire are that we are falsely designating "citizens."

Time is the essence of the contract. Let us have conscription and have it quick. Necessity, justice, and loyalty alike demand it.

The Retailer and His Community

How completely does the average retail lumber dealer appreciate the importance which should be attached to his business as a factor in the development of his community? Unless a retailer puts the proper estimate upon his business from this point of view he cannot be the influence he should be in his town, and the business he conducts cannot attain to its proper importance and size. This is a fact which is too often overlooked, but upon which depends, in a large measure, the success not only of the retailer himself, but of his community, for the retail lumber dealer should be a leader in the improvement of his community as a place in which to live and to do business. The last few years have seen a good growth in the understanding of this fact by retail lumbermen. The retail association idea is both fostered by this idea and an important factor in promoting it. There ought, therefore, to be the closest kind of co-operation between the retail lumberman and his community.

The interests of every community are inseparably bound up with those of the retail lumber dealer. His importance arises out of the fact that the goods he sells are the raw material from which the homes and business places of the community are built. The lumberman, therefore, is in no light sense a sample of the community itself. It is not exceptional to find visiting business men forming their estimate of the progressiveness of a whole community by the appearance of the local lumber yard and the manner of the lumber dealer. The responsibility of the lumberman to his community, therefore, is great, and the community owes it to itself to see that the lumberman is a wide-awake, progressive business man whose business methods and stock will advertise the district as one in which it is worth while to be located or represented.

Take any community you like and apply this test to it. You will find that the business level of the community corresponds very closely to that of the lumberman. If the community is more progressive than the lumberman, he must rise to its level, or make room for a better man; and if he is ahead of his community he will undoubtedly bring the community up to his own level or move on to a more progressive district. In this fact lies the reason for the leadership which the retail lumberman so often takes among those with whom he is intimately associated.

Keeping these facts in mind should help the retail lumberman to plan his business activities. The lumberman who realizes the fact that he is a leader, and that the development of his own business depends upon the development of the growth of his community will be always on the watch for methods of helping in the expansion of the town—with the one definite object in view, of making the town grow so that his business will grow with it. In order to measure up to the opportunities which are so clearly awaiting the man who is ready for them the retail lumber dealer must always be of such stuff as leaders are made of. Standard requirements for such a man are not beyond the reach of any ambitious retail dealer. In a discussion of the subject which we came across recently they are briefly and clearly summed up, as follows:

1. A high grade of commercial integrity, which never stoops to misrepresentation, which always insists on selling you the one wood best suited to your needs, and which would rather not sell you at all than have you dissatisfied, either now or ten years hence.

2. Complete and intimate knowledge of his goods—the particular qualities of all kind of lumber available to his market—their adaptability to various requirements, and their comparative cost.

3. Honesty enough to select and advocate intelligently those woods which for their serviceability and local economy he decides to carry.

4. A knowledge of practical building—ability to understand architect's plans, and actually to save you money on a lumber bill through selecting the most economical sizes and grades best suited to meet the requirements.

5. A specific special service to offer prospective owners, in the way of a plan service (not conflicting in any way with those buildings which properly require an architect). This service to be constantly at work suggesting ideas and improvements, building projects, and development investments to the people of the community roundabout.

6. Keen desire to increase building activity in his community, and energy in educating the community through proper advertising toward more and better buildings—all on the basis of profit through community service.

7. Personal interest in business friendships, and in holding and developing them.

Now, consider the situation of the resident who looks to his local retail lumberman, not only for building materials, but for assistance

and advice as to their proper use. When he seeks out the progressive lumberman he will be shown:

1. How best to solve his investment problem; how the use of some standard plan and attractive design will increase the rental value—and the actual market value—of his proposed house, and add a building of permanent and artistic value to the town.

2. The kinds of lumber that are best suited to the different parts of his building; and,

3. The sizes and grades which can be most economically fitted into the plan selected.

Would all this enlightened service strike the average citizen as a remarkable contrast to his regular conception of a retail lumber dealer? Undoubtedly the contrast is great in many cases, but in many other cases the picture is true to life, and, fortunately, the tendency of the times is always increasing the number of those dealers who can claim to be in a progressive class. There is just one thing which will bring about the increase of this class of retailer rapidly, and that is the banding together of those who are ambitious, and desire to progress, into local associations for studying their trade problems. Nowhere else in the whole world is it more true that in union there is strength than in connection with the retail lumber business.

Trying to Remedy Freight Overcharge Trouble

One of the most annoying difficulties connected with the lumber business in all its branches is the manner in which the railway companies of Canada have been permitted in the past to collect money from shippers, irrespective of whether the charge made is correct. Overcharges for freight are so frequent that they are responsible for a definite and extensive portion of the office work of all firms engaged in the lumber business, from the manufacturing to the retail end. Railway companies cannot legally retain moneys which they have secured in error, but the amount of correspondence and official red tape that has to be attended to does result in their obtaining substantial sums of money to which they are not entitled, and often it happens that the shipper, though entitled to a return of the money, fails to obtain it. Moreover, there is a large amount of interest thus obtained by the railway companies on money which does not belong to them.

This improper state of affairs has at last been brought so forcibly to the attention of the Government that it is possible that some relief may be obtained in the near future in connection with the revision of the railway act that is now being considered by the Government at Ottawa. A definite suggestion for an amendment in connection with overcharges was made recently by Mr. J. L. Campbell at a meeting of the Lumbermen's Section of the Toronto Board of Trade. Mr. Campbell proposed that the railway companies should be obliged to deal with money thus obtained in the same way as the banks are obliged to deal with unclaimed balances in their possession—that is to say, an effort should be made to return the money to the owner, and such amounts as cannot be returned should be reported periodically and turned over to the Government. Mr. Campbell's suggestion involved a duty on the part of the railway companies to have their auditors report such overcharges at the same time as they report undercharges. Then the railway companies, Mr. Campbell proposed, should be obliged to make an effort to return the money to the owners. On its face this proposition is a reasonable and fair one, and ought to be accepted by the railway companies. Its embodiment in the new railway act would go a long way towards simplifying one of the most complicated and difficult traffic problems that the business men of Canada have to deal with to-day.

A special committee of the House of Commons is at present engaged on the consideration of the proposed revision of the railway act. This is a very extensive piece of legislation containing a consolidation and many revisions of the contents of the existing act. The revised act contains a proposed new section dealing with refund of overcharges in tolls. Under the present act the Dominion Board of Railway Commissioners apparently has no authority to order a refund of such overcharges, and the proposed new section gives the board this authority. The section, as originally drawn up, reads as follows:

"357. REFUND OF TOLLS. The Board may, where it finds that a toll which has been collected or received by the company is illegal, order the company to refund the portion of such toll which is in excess of the legal toll, with interest upon such excess at the rate of five per cent. per annum from the date of collection of such toll; but no such refund shall be ordered unless application for adjustment has first been made by the claimant to the company, nor unless application is made to the Board within one year after the date of collection or receipt by the company of such toll."

At a recent meeting of the special committee, representatives of the Railway and Transportation Committee of the Toronto Board of Trade were present, and asked that this section be amended. The introduction to the amended section is similar to that of the proposed original section, but the concluding clauses are different, and provide that "no such refund shall be ordered unless application for adjustment has first been made by the claimant to the company, nor unless application is made to the board within two years after the company has declined to pay the claim. But nothing herein contained shall be held to deprive the claimant of his right to recover any such claim in any court of competent jurisdiction, nor relieve the company from the duty of making refund immediately on its discovery of any improper charge and without awaiting demand."

The object of the proposed amendment to the new section is to provide that a claimant for an overcharge shall be entitled to recover in court as well as to make application to the Railway Board; also to place upon the railway company the duty of making the refund without waiting for a claim on the part of the shipper. The representatives of the Toronto Board of Trade received a very sympathetic hearing from the special committee of the House of Commons in connection with this amendment, and have grounds for hoping that it will be included in the act when it is reported to the House of Commons. If this provision is successfully incorporated in the new act the situation will be a much better one than it has been in the past, as it will then be a much easier matter to induce the board to order the railway companies to make refunds promptly. The successful inclusion of the amendment in the act to be drawn up by the special committee does not guarantee that it will be included in the act finally passed by the House of Commons. It will have to go through its three readings and committee stage in the House before becoming part of the statutes.

Chain Letters Again Reaching Lumbermen

The chain letter has again turned up of late among lumbermen in Canada. This time it is one which makes an appeal for money to be used in purchasing anaesthetics for use in the hospitals of the Allies. The facts in connection with this particular letter point strongly towards the advisability of always ignoring such appeals. It is not our custom to refer to matters which are so far removed from the affairs of the lumber business as this, but the frequency with which such appeals have been reaching lumbermen in Canada during the past year furnishes us with justification for warning them to avoid having anything to do with them. In the first place, the probability in connection with most chain letters is that they are fraudulent. Many of them have been shown to be criminal attempts to obtain money by false pretences. One would think that the ordinary business man would pay no attention to such appeals, but this is not the case. Apparently many a man

thinks that the best way in which to get the thing off his mind is to send a small contribution and be done with it. The evil of the practice, however, does not end with the man who makes a contribution. If he does not break the chain he simply shifts the burden, light as it may seem, on to someone else's shoulders.

The letter which has come to our attention lately is one in regard to which we have made some enquiries, and find that it probably had its origin in a well-meant effort to be of assistance; but sufficient money was obtained long ago and still the letter is continuing its travels and bringing in money which the recipients are unable to dispose of properly. Although they ask that the chain be discontinued, it is in no one's power to stop it; and, like some others, it has apparently become a burden to those who originated it. The whole idea of sending out a chain letter is one which has such unexpected, or such fraudulent, results that governments should make it a criminal offence to send them out. In fact, governments might be justified in making it an offence even to continue the chain.

The letter asking for money to purchase anaesthetics states that there is a scarcity of chloroform at the front, and that many operations are performed daily which cause indescribable pain. No less an authority than General J. T. Fotheringham, of Toronto, who has been in charge of important surgical work at Salonika and in France, states that this is utterly untrue. Yet in this case the nurse at a New York hospital, who originated the latter, is vouched for by the superintendent, and undoubtedly started the chain in good faith, thinking that she was doing something really commendable.

The best advice we can give to anyone who receives such letters is to ignore them; or, if he feels that there is a possibility of the matter being genuine and the need urgent, he should make very definite enquiries of someone who is in a position to locate the parties making the appeal and to find out whether the case is a deserving one. In this particular case, for instance, it required only one letter to a friend in New York to secure full information to the effect that the chain had long ago fulfilled all that it was intended for, yet we venture to say that many months from now business men will still be receiving copies of this letter and sending in contributions.

Some of the Southern Manufacturers' Troubles

It is a difficult matter for lumber manufacturers in Canada, who are not, as a rule, familiar with the methods of financing and operating in the industry in the Southern States, to grasp the causes which lead to uneconomical producing and marketing methods. In a general and rather rough way the Canadian manufacturer and wholesaler understands that overproduction, forced by heavy bonded indebtedness, is responsible for this situation, but as to the details of this responsibility they are not very clear. Quite an instructive and interesting discussion of this subject occurs in a paper recently prepared by Mr. Wilson Compton of the United States Federal Trade Commission, the title being, "The Present Conditions in the Lumber Industry," a paper which was read before the Society of American Foresters.

After discussing briefly the extent of the lumbering industry in the United States, Mr. Compton says:

"If the total carrying charges on timber in each region were paid out of the receipts from current sales of lumber, the annual charge on each 1,000 feet cut would be approximately $1.85 in the Douglas fir region, where the timber itself is valued at about $1.35; in California, $2.50, where the timber is valued at about $2.10; $2.40 in the Inland Empire, where the timber is now valued at approximately $1.90; and $1.17 in the Southern pine region, where the timber is valued at from $4.50 to $5 a thousand feet. Of these timber-carrying costs more than one-half on the average is in the interest due on the timber bonds. Most of the remainder is in taxes. Both are compulsory payments, and have become, in many instances, extremely burdensome and promotive of constant overproduction because of the insistent desire to liquidate a relatively unprofitable investment. It is obvious that private timber has been, in many instances, grossly overcapitalized, and especially that private owners have assumed a stupendous task in attempting to carry the equivalent, on the average for all regions, of more than fifty years' supply at the prices which they have paid for it."

In the South Mr. Compton finds that timber is capitalized at from $2.50 per thousand feet in North Carolina pine to $6 in Western Louisiana. During the past seven or eight years, however, manufacturers have found their manufacturing operations unprofitable, according to their own statement. The books of many operators do show almost constant loss on operation, yet these same mills have increased the book charge for their stumpage despite the fact that the milling operation continues to show a net loss. This practice is an economic curiosity. Suppose, for example, that the average price of lumber at the mill is $14 per thousand feet; that the total labor expended in its manufacture cost, including all salaries, $8; the mechanical equipment, machinery, steel ropes and saws, say, $2; wear and tear on the plant, $1; interest on the operating investment, $1; making a total cost as thus computed of $12 per thousand feet, and leaving, therefore, only $2 to be paid for the stumpage. Suppose, again, that this price continued at $14 per thousand feet over a long period of time and the costs likewise as enumerated, would it be correct at the end of ten years to say that the stumpage is worth $4 because "the value of timber should double every ten years," and, therefore, charge it to manufacture at that figure? I believe that that is essentially what many Southern pine operators are doing to-day, and what they have been doing in substance since the time of the general fall in lumber prices in 1907 and 1908.

The practice of bonding timber was initiated in the South about the year 1900, and became generally prevalent as an aid to timber speculation in the West about 1905 or 1906. These timber bonds were regularly ten-year or fifteen-year serial bonds, paying from 6 to 8 per cent. net interest, and stipulating that a certain amount of the timber thus bonded be cut each year in order to meet the payments of interest and principal as they accrued. The net result has been the isue of timber bonds, amounting in 1914 and 1915 to approximately $65,000,000 in the Pacific Northwest, $26,000,000 in California, $18,000,000 in the Inland Empire, and $180,000,000 in the Southern pine region. These bonds are secured chiefly by the timber, but in part by the mill plants themselves. The annual interest bill on these bonds is nearly $25,000,000. The cutting of timber is compulsory in many cases because of the provisions of the serial bonds, irrespective of the current prices obtainable for lumber.

In the absence of adequate banking accommodations and under the pressure of heavy carrying charges on his timber the timber owner has been forced to resort to increased cutting, with almost no regard for the market conditions, in order to make these payments, for which he has no other resources. The result has been that the supply of lumber is determined in large measure not by the demand of consumers of lumber, but by the demand of the banks for interest and by the demand of the communities for taxes on the great load of private timber reserves, which are not now a source of reasonable profit, but, rather, an actual burden upon the industry.

Mr. Compton concludes with a discussion of the lumber producing capacity of the United States, which he says is over 100,000,000,000 feet, while the maximum consumption in any one year has been less than half this amount and has been declining steadily in recent years, so that one half the mills have to remain continually idle or all the mills have to operate to less than half capacity on the average. Inefficiency in the industry in all its branches exists in abundance, Mr. Compton says, and he cites an instance. He recently made a tabulation of total logging costs shown by the records of 119 operations. The majority had a cost between $3 and $4.50, the lowest being $1.62 and the largest $10.40. In 64 operations the cost of production from stump to car was between $12 and $14 per thousand feet, exclusive of stumpage, the lowest being $10 and the largest more than $20. Such diverse costs make stable conditions of competition impracticable.

Ontario Compensation Act Report

Details of Operation Cost During 1916—Accident Statistics in Lumbering and Woodworking Industries

The report of the Workmen's Compensation Board of Ontario for the year 1916 contains much that is of interest to those who are engaged in the lumbering and allied industries. "The two years' experience now had of the act," the report says, "affords fair opportunity to judge of its merits. From the tenor of communications from both employers and workmen few would care to revert to the old system. The furnishing of compensation without expense to the workmen and at actual cost to the employer, the speedy disposition of cases, removal of causes of friction between employer and workmen, immunity from litigation, and making compensation for injury the rule rather than the exception, are the outstanding advantages of the present system. As under any law, there will be individual instances where the new condition may be less favorable to either party than the old, but the general advantage to both workmen and employers and to the community at large seems to be unquestioned.

The report includes a statement of income and expenditure for Schedule 1, which includes the industries of lumbering, pulp, and paper mills, furniture manufacturing, and planing mills. The total receipts in the lumbering class during 1916 amounted to $211,961, and the expenditure, including compensation of all kinds, administration expenses, disaster reserve, etc., amount to $150,622. Similar figures in connection with the other industries mentioned above, included in the report are as follows: Pulp and paper mills, income $67,549, expenditure $79,051, showing a provisional deficit of $11,502; furniture manufacting, income $50,489, expenditure $46,974, provisional balance $3,515; planing mills, income $85,097, expenditure $111,248, showing a provisional deficit of $26,151.

The administration cost borne by the employers of all the industries in Schedule 1 is 4.21 per cent. of all assessments collected during the year. The total expenditure for administration amount to $112,523. The amount apportioned among employers in Schedule 1 was $74,527, being in proportion to the number of accidents, as compared with those in Schedule 2; some of the administration cost also being borne by the province.

Accident statistics for 1916 in connection with the four classes referred to above are as follows:

Class.	Temporary disability.	Permanent disability.	Death.	Totals.
Lumbering	648	122	55	825
Pulp and paper mills ...	288	28	8	324
Furniture mfg., etc.	170	83	2	255
Planing mills, etc.	353	107	3	463

In connection with the cause of accidents, it is shown by the statistics presented that the most prolific cause is what is classed as "saws and kick-backs therefrom." From this cause 642 accidents were reported, 442 of which resulted in temporary disability, 195 in permanent disability, and 4 in death. "Shapers, stickers, matchers, and headers" were responsible for 98 accidents, which included 67 cases of temporary disability and 31 of permanent disability. "Planers, veneerers and sanders" were responsible for 107 accidents, including 82 which resulted in temporary disability and 25 in permanent disability. "Jointers, edgers, slicers, and stayers" produced 95 accidents, of which 51 caused temporary disability and 44 caused permanent disability. "Barkers, grinders, crushers, and strippers" were responsible for 92 accidents, of which 72 caused temporary disability and 20 caused permanent disability.

U. S. Expected to Put Ten Per Cent. Duty on all Imports

The Ways and Means Committee of the House of Representatives at Washington, D.C., recently reported a War Revenue Bill which carries a blanket clause providing for a duty of 10 per cent. ad valorem on all importations into the United States which were heretofore on the free list and an addition of 10 per cent. in the duty on all dutiable goods. Much discussion is taking place in the lumber trade, both in the United States and Canada in regard to the effect that this will have upon the importation of Canadian lumber. Much will depend upon the competition from other producing districts and it is practically impossible to say in advance what the result will be.

The present list of goods which may be imported into the United States free of duty includes the following:—Wood: Logs, timber, round, unmanufactured, hewn or sawed, sided or squared; pulp woods, kindling wood, firewood, hop poles, hoop poles, fence posts, handle bolts, shingle bolts, gun blocks for gunstocks, rough hewn or sawed, or planed on one side; hubs for wheels, posts, heading bolts, stave bolts, last blocks, wagon blocks, car blocks, heading blocks, and all like blocks or sticks, rough hewn, sawed, or bored; sawed boards, planks, deals and other lumber, not further manufactured than sawed, planed, and tongued and grooved, clapboards, laths, pickets, palings, staves, shingles, ship timber, ship planking, broom handles, sawdust, and wood flour; all the foregoing not specially provided for in this section.

Another clause in the free list includes mechanically ground wood pulp and chemical wood pulp, unbleached or bleached.

Under the new tariff, if it is passed, all of these will have to pay 10 per cent. ad valorem duty.

Luther Pomeroy Graves

On May 13, at his home, Luther Pomeroy Graves passed out of this life, one of Buffalo's first citizens, and prominent for many years in the lumber trade of the North Country.

He was born in 1862 at Suspension Bridge, N.Y., of a mother of exceptional attainments, and of a father who, answering the country's call, gave his life on a Southern battlefield, and never saw the son who was afterwards to do honor to his name. He was about 14 when this mother, whose memory was ever his inspiration, died, leaving him and a sister orphaned. He had always been trained to help out a slender family income, and for a few years he continued at and near Suspension Bridge, in such employment as a boy might, in those days, find.

In his seventeenth year, or thereabouts, he went to Buffalo and started with the firm of Holland & Stewart, to learn the lumber business. Here those talents which were in after years to signalize him so were early recognized. Advancement was rapid, and at the age of 24 he joined with Mr. Nelson Holland and Mr. George B. Montgomery in the formation of Holland, Graves & Montgomery, in which business, with some change of associates, he continued up to his death.

In 1896 he entered, with Mr. Holland, into lumber manufacturing in Canada, in which field he also continued, with prominence, to the last.

In all his business affairs his keenness, his acumen, his exceptional capacity were ever emphasized, but it was not in these that his chief distinction lay. Transcending the brilliancy of his mind were the qualities of his heart. Of great determination and courage in all he undertook, his first concern was, Is it right? Is it fair? Sensitive as a woman, he had the highest ideals of honor and personal purity. Simple as a child, he was ever democratic in his sympathies, and free from ostentation. These qualities were not alone the unprompted expression of a naturally noble nature, but were buttressed by a profound and ardent religious faith and conviction; a faith that Life's mysteries would to him some time be made clear, and a conviction that Life's relationships brought duties to be met in the spirit of The Christ, and to the honor of his God. He was a born leader among men, but he never led in ways ignoble. He always took men at their best, and he had the peculiar quality of evoking that best. Men seemed to want to put their finest side forth when in his presence.

He married early in life, and leaves a wife, four sons and three daughters to mourn the loss of his affection, his care, and his guidance.

This brief account is written by one who knew him long, was associated with him closely in business, loved him well, and mourns him much. Those who knew him best will appreciate its inadequacies and its restraints, for to them he was ever, in the truest sense, a king.

The White Pine Association of the Tonawandas, at a recent meeting, passed a resolution of appreciation of the sterling character of the late Mr. Graves, and extended their sympathy to the bereaved family.

There will be practically no change in the present business arrangements of the firm of Graves, Bigwood & Co., of whom the remaining partners are Mr. W. E. Bigwood, Toronto; Mr. A. C. Manbert, Toronto; Henry I. George, Buffalo, and Nelson C. Holland, of New York.

The Enquiry Corner

Pulpwood Supplies in Ontario

Buffalo, N.Y.

Editor Canada Lumberman:

Can you inform me where I may be able to obtain a large supply of pulpwood monthly? Yours truly,

Broker.

The conditions prevailing in connection with the pulpwood market in Northern Ontario and Quebec to-day are such that practically the only way in which one can obtain a large quantity of pulpwood is by getting into touch with parties who are conversant with the details of the situation locally and authorizing them to purchase. In making purchases, moreover, the only satisfactory method to-day is one which involves making advances of money for the wood as it is cut, further advances as it is piled alongside the track, and final payment when it is loaded on the cars. It is possible to obtain a small quantity of wood on mill measurement, but transactions of this nature are of a very limited character. The enquirer has been given information in regard to parties who can handle his purchasing business satisfactorily.

Prevention of Power Saw Accidents

Statistics Show This to Be the Most Prolific Source of Injury to Workmen—Rules for Avoiding Danger

According to the report of the Workmen's Compensation Board of Ontario for the year 1916, the most prolific source of accidents in connection with the industry is the operation of saws and kick-backs therefrom. The classified statistics of causes of accidents show that from this source 641 accidents occurred during 1916, of which 442 caused temporary disability and 195 caused permanent disability, while 4 cases resulted in death. So important does the board consider this source of accidents that it has included in the report a special charter, dealing with "Accidents on Power Saws and Their Prevention." This chapter says:

During the year 1916 there were 12,273 claims finally disposed of, resultant from accidents occurring during that year. Of this number 4,056, or 33.06 per cent., were caused by the operation of machinery. The operation of power saws were responsible for 641, or 15.80 per cent., of the machine accidents, or 05.22 per cent. of the total number. Their total cost was $74,973.01. The additions of those accidents in which claims had not been filed, or in which claims filed had not been finally disposed of at the end of the year, and of the vast number of accidents causing less than a week's disability, would considerably augment this burden, but the figures presented are a justification for an analysis of accidents caused by the operation of power saws, the more so when the character of the disabilities is considered.

In any analysis of accident statistics it is a relatively difficult matter to charge fault, carelessness, or negligence to the operator or employer, or to assign such fault, carelessness, or negligence as the prime cause of individual accidents. It is possible, however, to adduce certain general principles.

The following excerpt from "The Bulletin," issued monthly by the New York State Industrial Commission (September, 1916, page 12), is interesting: "One of the largest concerns manufacturing saws in this country states, in its catalogue, that one-half of the saws sent back to the factory for repairs have been injured or ruined by the neglect of the owner or operator, who, although knowing how to properly fit saws, fails to reset or sharpen the saw, as long as he can force the same through a cut of any kind."

Saw Accidents According to Age

This would seem to indicate fault, but ignorance is perhaps the main reason. In this connection the grouping of the workmen injured by saws, according to their age, throws some light.

Age of injured.	Temp. Disability.	Perm. Disability.	Death.	Totals.
Under 20	116	28	.	144
20 — 25	59	28	1	88
25 — 30	47	27	1	75
30 — 35	46	11	1	58
35 — 40	46	25	1	72
40 — 50	73	30	.	103
50 — 60	35	24	.	59
Over 60	20	22	.	42
Totals	442	195	4	641

Experience, or lack of experience, on the part of the operator in the operation of power saws is also worthy of note:

Experience.	Disability. Temp.	Disability. Perm.	Death.	Totals.
Under 1 week	90	27	2	119
Over 1 week but under 1 month	99	41	1	141
Over 1 month but under 6 months.	140	55	.	195
Over 6 months but under 1 year	26	12	.	38
Over 1 year but under 2 years	9	13	1	23
Over 2 years but under 5 years	40	22	.	62
Over 5 years	38	25	.	63
Totals	442	195	4	641

Numerous styles of guards are in use or on the market, and their installation should be encouraged by every possible means. It is, however, very difficult properly to guard saws in general use—where a certain guard is practicable for certain operations it is not for others. When it must be adjusted to each different operation, it may take longer to adjust the guard than to perform the work requiring the use of the saw. One employee may remove the guard and almost invariably the next operator fails to put it on.

A large percentage of accidents on saws is the result of "kick-backs"—that is, where the timber flies back and strikes the operator. Of the 641 "saw" accidents tabulated, 104 were caused by kick-backs, there being 93 causing temporary disability, 9 some permanent disability, and 2 death. The causes of kick-backs are largely three, as follows:

1. Dull Saws.—With a dull saw extra pressure is required on the saw, thus increasing the danger of a kick-back, or of the operator's hand slipping on the saw.

2. Saws Not Properly Set.—The saw expands at its edge from the heat at the base of the teeth, due to the closing of the grain or fibre of the wood. The result is vibrations, cracking of saws at the bottom of the gullets, and kick-backs.

3. Gauge or Fence Not Being Pulled With the Saw.—If the gauge should be closer to the backs of the saw than it is to the front it forms a wedge between saw and gauge, and a kick-back results.

Perhaps the most important things in the prevention of accidents occurring through the use of power saws are the keeping of saws properly set and sharpened, the knowledge of the operator as to the proper use of his saw, and of the things he should do and should not do, the proper location of saw tables or frames, and the protection of the floor.

The setting and sharpening of saws should be done by someone familiar with the work, not only for the sake of the operator, but for the sake of the saw. A properly set and sharpened saw cannot bind, but will cut its own clearance, saving both time and power. It is readily noticeable that a dull or poorly-set saw reduces its speed in cutting.

A rip-saw cannot be used successfully for cross-cutting, but a cross-cut saw can be used for ripping. The swage-set rip-saw prevents side friction or binding, it will do more work than a spring-set rip-saw, and will stand more feed; the swage-set saw cuts a shaving with the grain of the wood; in the spring-set saw alternate teeth cut on opposite sides of the kerf.

Well-kept Saws Prevent Accidents

It is important that each tooth of a saw should do the same amount of cutting. If the saw is "out of round" the possibility of injuries is greater. If it has long and short teeth, the long teeth will have the most work to do, and hence an unequal strain on the saw is produced, and it will deviate from its line. A rounded gullet takes away sawdust better than a square notch, which produces a crack and prevents free circulation of sawdust. If an emery is used to sharpen or gum saws, a free cutting wheel should be used. If the teeth become case-hardened or blued or glazed, the saw will be apt to break or crack. Overheating by short and tight belts should be avoided, the collar and stem of the mandrel should be true and fit perfectly, no end play or lateral motion in mandrel should be present. In the case of band-saws, proper tension is important. Improper adjustment of back thrust, uneven joints, or the collection of dust on the face of the saw wheel should be avoided, and band wheels should be round and perfectly balanced. With a band-saw, as well as with all saws, speed is an important efficiency factor.

The saw table should be in a firm position on the frame, the opening in the table for the saw should not be too large, the gauge should be in proper condition, and it should be seen to that it can be securely fastened to the table; the bearing and arbor should be perfectly fitted and balanced and free from end thrust, and the saw should fit the mandrel.

It is of prime importance that at the front and sides of every saw table a non-slipping floor surface should be made; if nothing better, slat flooring should be supplied. Sufficient lighting and proper sawdust carriers are requisites of an up-to-date establishment.

To these few suggestions might be added many more obvious ones. Saws should not be stopped with sticks when the power is off. Recklessness, horseplay, throwing of wood to hear the saw sing, are prolific causes of accidents. The proper instruction of employees and eternal vigilance will add to "safety" dividends.

The point to all safety work is not so much what might have been saved if the accidents had not happened, but rather is this, and truer of saws than of almost any other form of machine, every unguarded machine is a potential accident-carrier. It is merely the accident of chance that every accident is not a death.

Statistics of accidents from this cause show that the great majority of them occur in connection with lumbering, furniture manufacturing, and planing mills, the greatest number being those which occurred in planing mills.

Steamer Shortage Reducing Newfoundland Operations

A despatch from St. Johns, Nfld., states that inability to obtain steamers to transport their product to England, has resulted in a decision of Lord Northcliffe and his associates to shut down their large paper mills at Grand Falls. The single steamer hitherto allowed the company has been commandeered by the government. It is understood that most of the log-cutting operatives employed by the mills will take service in the forestry battalions being organized in Newfoundland for timber work in Great Britain.

The Union Lumber Company, Toronto, were among the firms which were affected by the recent ice blockade at the Soo. They had a vessel on its way up the lakes to load 3 in. deals at Michigan points for export, and it was held by ice at the Soo for three days.

New Brunswick Crown Land Report

Stumpage Returns Show Increase of $70,000—New Timber Regulations Now in Full Force

The annual report of the Crown Land Department of the Province of New Brunswick for the year ending October 31, 1916, shows that the receipts of the department amounted to $543,110, as compared with $596,698 for the previous year. In view of the trying conditions which existed, 1916 is considered to have been a most successful financial year. Nearly $70,000 more was collected for stumpage than during the logging season of 1915-16. The Minister of Crown Lands states that it is a matter of congratulation that he is able to report a smaller lumber cut, as many areas are logged over where logging operations should be discontinued in order to allow the young lumber to grow to merchantable size. Referring to the fact that certain sections of the Crown Lands are not operated on at all, the Minister says: "It must be borne in mind that the great distances from milling operations and the cost of getting in supplies," made him hesitate in placing the embargo in effect against licensees, so long as a reasonable cut was made by them on other portions of their lands. In some cases, however, the embargo has been put into effect where licensees were simply holding lands and making no effiort to do any logging.

"So far as the past season is concerned it was a favorable one from the lumberman's standpoint in getting out logs, but owing to the abnormal times the costs of supplies were higher perhaps than ever before, while increased wages and a shortage of men added very largely to the cost of getting out logs. The greatest handicap, however, was the scarcity of tonnage to enable this lumber to be shipped abroad, and so long as this great war continues I see no promise of an improvement in this respect.

"Notwithstanding all these drawbacks the Department records with considerable satisfaction the fact that stumpage and mileage dues were to a very large extent promptly paid. In this connection I think I am safe in saying that in no other previous year have there been better results, reflecting not only credit on those who paid, but on the ability of the staff of the Department in helping to bring about this result.

"The outlook at the time of writing promises a larger cut than last season, but whether this is a matter of congratulation or not it gives me the assurance that our forest wealth is not declining and with better methods of lumbering, more up to date supervision in cutting and scaling, and more protection from forest fires, the Crown Lands will, for all time, provide a large part of the income necessary to carry on the financial affairs of this province.

"It has been brought to my notice that 293 square miles under license, in conformity with the old Timber Regulations, will expire on August 1st, 1918. I contemplate taking measures whereby these licenses may be subject to further renewal to August 1st, 1933, and under conditions that would work no unfairness to the licensees who renewed their holdings on August 1st, 1913."

The Forest Survey

The report then refers to the forest survey which is being made in the province. Considerable progress has been made in classifying, surveying and reporting upon the Crown area of 10,000 square miles. During the summer of 1916 nearly 500 square miles had been examined and the results mapped and tabulated. It is expected that during 1917, 1,000 square miles will be covered.

The total quantity of lumber cut from Crown Lands during the year was 241,210,684 superficial feet, in addition to 508 cords of firewood and pulpwood, 54,086 sleepers, 2,320 telegraph poles and 1,715 posts. The quantities of the various kinds of lumber cut and the stumpage collected upon them were as follows:—spruce and pine logs, 162,132,621 feet, stumpage $252,329; fir logs, 62,534,376 feet, stumpage $75,041; cedar logs, 10,522,370 feet, stumpage $15,783; hemlock logs, 1,836,006 feet, stumpage $918; hardwood logs, 1,258,165 feet, stumpage $1,572; poplar logs, 2,927,146 feet, stumpage $2,927.

The total stumpage collected was $352,599. The amount paid to the provincial treasurer, including the stumpage, old accounts, etc., and making various necessary allowances, was $354,042. The department paid out during the year for scaling, collection and protection of lumber $29,398. Among the receipts of the department for the year were the following:—

Receipts	Year 1915	Year 1916
Sale of Timber Licenses	$ 1,759.00	$ 6,312.50
Renewal of Timber Licenses	81,388.00	83,892.00
Stumpage	422,909.26	354,042.52
Transfers of Timber Licenses	1,419.00	980.00
Bonuses Timber Licenses	1,971.50	61.92

The report contains the new timber regulations which came into effect on August 1, 1913, with amendments. According to these regulations, their provisions are now applicable to all timber licenses in force or hereafter applied for, except in the case of licensees who elect to renew their existing licenses which continue in effect, if the licensee so desires, until August 1, 1918, when they become utterly null and void. All licenses, whether new or renewed, are subject to the new regulations. These regulations provide a period of 20 years for sawmill licenses, from August 1, 1913, with a renewal fo ten years. Pulp and paper licenses extend for thirty years, with an extension of twenty years.

The stumpage on logs, timber, etc., cut upon Crown lands is as follows:—

For spruce, pine or hacmatac saw logs, per M. superficial feet	$1.50
Hardwood timber, up to an average of 14 ins. sq., per ton	1.10
Hardwood timber, above 14 ins., additional per inch, per ton	0.10
Hardwood logs, per M. superficial feet	1.25
Pine timber, up to 14 inches square, per ton	1.25
Pine timber, additional per inch, per ton	0.25
Hacmatac timber, per ton	0.65
Spruce timber, per ton	0.75
Cedar logs, per M.	1.50
Railway ties, 8 feet length, each	0.05
Hemlock logs, per M. superficial feet, including bark	1.40
White birch, for spool wood, per cord	0.65
White birch logs, for spool wood, per M., superficial feet	1.25
Fir logs, per M. superficial feet	1.20
Poplar logs, per M. superficial feet	1.00

For all other descriptions of lumber the stumpage is 15 per cent. of the market value thereof at the mill, place of shipment, or place of consumption in the province.

No spruce or pine tree shall be cut under any license, which will not make a log at least 16 feet long and 9 in. at the small end. Fir logs must be not less than 16 ft. long and 7 in. at the small end. In connection with all future operations trees must be sawn down at the swell of the roots instead of being chopped down and the saw is to be used instead of the axe in cutting the tree into lengths. The trees are to be topped off as small as 5 inches in diameter and the lower limbs of every fallen tree are to be lopped off so that the top will lie flat on the ground to rot. No spruce or pine trees are to be used for skidding or building roads.

A copy of the forest fires law is also included in the report. The report concludes with the annual report of the forest survey which is being carried on under the direction if Mr. P. Z. Caverhill.

George W. Nickels Passes Away

One of the best known lumber salesmen in Toronto, Mr. Geo. W. Nickels, died in St. Michael's Hospital, Toronto, on Thursday, May 17, and was buried in the Necropolis on Saturday, May 19th. The late Mr. Nickels was at one time in the hardwood business as a member of the firm of Regan and Nickels. After the dissolution of this firm he took up the selling of lumber on commission, and for the past two or three years had represented the Rideau Lumber Company of Ottawa in the Toronto market. Mr. Nickels was a welcome visitor at all the offices at which he called and was particularly known for his honorable and upright business dealings. His never-failing courtesy always secured for him a cordial reception from his customers. Mr. Nickels was a widower and his only son is now overseas in the 69th Battery, C. F. A. Although he had no immediate relatives or intimate friends, Mr. Nickel's funeral was largely attended by representative Toronto lumbermen and also by a representative of the Rideau Lumber Company.

New Freight Classification

The Canadian Manufacturers' Association have sent out a circular under date of May 12 in regard to the proposed Canadian freight classification No. 17. The circular reports that after holding sittings at Hamilton, Toronto, Ottawa and Montreal, the Board of Railway Commissioners have issued a memorandum saying that before they give any further consideration to the matter they will hold a number of sittings at the chief centres of population in the west, and that subsequently the railway interests will be directed to hold informal conferences with those interested in different lines of trade, with the idea of having the parties agree as far as possible on the details of the proposed classification. After these conferences there will doubtless have to be another discussion before the Board, when further procedure will be decided upon. The railways have already expressed their willingness to meet the shippers after the hearings are held in the west, and the Canadian Manufacturers' Association intend to invite each line of trade separately to consider the changes in which they are interested, and then to meet the railways.

British Columbia's Logging Troubles

Increased Cost of Labor and Supplies Together with Scarcity of Wire Rope Making the Logger's Lot One of Tribulation and Trial

By W. B. W. Armstrong*

The tidewater log market of British Columbia is in a very peculiar position at the present time. Stocks are low and production has been very much retarded by the extremely late season and other causes. This has resulted, naturally, in an increase in price, although this increase does not yet appear to be in proper ratio to the increase in cost.

The troubles which the loggers have to contend with are many. The following are some of the greatest of their many worries:—

First: Labor has increased nearly 50 per cent. in price, and at the same time has decreased very much in efficiency, so that at the present time a unit of productive labor is costing about double what it did a year ago. This condition has been brought about very largely by the recruiting of our men for service in the war. Not only have they been taken in the Forestry battalions, but very many of them have joined the combatant forces and are helping to make a name for Canada at the battle front. It is probably true that the logger as a class is as physically fit as any man in the world, and as ready to fight as any man in the world, which possibly accounts for the large proportion of these men who have gone to the front.

Second: Logging machinery, locomotives, rails and machinery repairs are not only extremely high in price, but are very hard to procure, and in many cases serious delays can be attributed to this cause, while the costs, as applied to the actual woods operations, have been very materially increased.

Scarcity of Wire Rope

Third: Wire rope, which, next to labor, is the most important item in our camps, is almost unprocurable. As a matter of fact, the wholesalers and manufacturers' agents, who formerly carried large stocks of this material in Vancouver, have none at all on hand at the present time, and their import orders require to be substantiated by an affidavit from the prospective user, showing the urgency of his requirement, which affidavit finally goes before the Priority Board in London, who are the final judges as to whether the supply will be granted or not. The Priority Board are really deciding at the present moment whether some of our camps shall run or not.

Fourth: We are supposed to pay our men a daily wage and charge them a weekly rate for their board, which rate is supposed to cover the cost of the food and its preparation, together with the maintenance of bunk houses and other conveniences. At the present cost of food stuffs the boarding house is being run at a very considerable loss, and the indications are that this loss will become greater as the season advances. The natural remedy for this would appear to be an increase in the price charged the men for board, but as this would only result in a demand for more wages, there does not appear to be much use in adopting this plan.

There are in operation now, or will be by the end of June, nine mills more than were being operated in 1916 and a rough estimate of their capacity would be about seventeen million feet per month. This increase in sawing capacity is scarcely likely to be met by a corresponding increase in logging capacity, owing to the scarcity of labor and materials which I have mentioned. Some new logging outfits have gone in this year, but they will scarcely counteract the number of smaller loggers who have been forced to drop out. The indications, however, are that the market for the whole of this year will show a strong demand with a somewhat smaller supply.

Log Prices Slow to Advance

The prices received for logs at present are somewhat better than they have been for several years, but still are not commensurate with the increased cost, or with the increased prices which sawmillers are receiving for manufactured lumber. The increase in the latter during the past year has amounted to $5.00 per thousand feet or more, whereas the price for logs has advanced only about $2.00. The labor employed in the mills has not by any means advanced so sharply in price as has the labor used in the woods. This is accounted for in part by the fact that the loggers use white labor only and that the larger part of their men require to be skilled workers; in some cases receiving as high as $175 per month. The average cost of labor in the logging camps at the present moment will run about $112 per month.

The shortage of cars which has been one of the bugbears of the lumber manufacturers for some time, is not quite so bad as it has been, and the indications are that our manufacturers will be able to ship a very large proportion of their orders from now until the wheat again demands the railroad facilities. In the meantime we are building some ships here which will load lumber as fast as they are completed. Two of these are already on their way across the Pacific with about three million feet of lumber. In less than four months these two ships should be back for another load, and in the interval at least two more should be completed and sent on their way. These ships will afford considerable relief in the lumber market here, and, in passing, it is well to remember that each ship in its own construction uses about one and a quarter million feet of fir.

The demand for pulp is strong and the mills manufacturing pulp and paper are extremely busy, with orders placed for many months ahead. Notwithstanding this, the price for pulp logs has not even begun to approach the price received for similar products in Ontario and Quebec.

In conclusion I may say that while the demand for logs is good and prices are better than they have been, there is yet to be considerable improvement in the log market before the loggers will get their fair proportion of the price which is eventually received for the finished lumber.

*Secretary of the British Columbia Logger's Association.

Saving Friction Money in the Lumber Mill

If unnecessary friction costs a lumber mill owner $5 per day, and if that friction could be eliminated by an expenditure of $4 per day, it should be considered good business to spend $4 to make $5, and thereby save $300 per year, if there are 300 working days per year. Yet superintendents and managers are daily overlooking the savings possible in the direction of reducing friction. Poor bearing design and improper care of bearings are largely responsible for much of the wasted money. Windage is another thing that might well be considered. Poor oil, insufficient oil, unnecessarily heavy pulleys and shafting, unnecessarily tight belts and misalignment of shafting are all factors that eat up money in the form of friction.

There is no mathematical formula in existence that can be applied to any friction problem. Every problem is different, and the foreman or superintendent must exercise good judgment, principally. Take the case of "too large shafting." Ever hear of such a thing before? In the old days they used to say "the bigger the better," but not so to-day. Even the shafting must be "just right"—not too large and not too small. It would be nice, of course, if we could use shafting that didn't weigh any more than cork, for instance, but there's no such shafting. So, in order to minimize the friction loss in the lumber mill, the more up-to-date ones are being cautious about the size of the shafting. It is well to reduce the weight of all moving and rotating parts to the smallest amount practical. Wood pulleys and steel pulleys are therefore frequently resorted to. And where a drive can be simplified by eliminating a jack shaft or countershaft, such practice is also commendable. Where power is distributed by shafting and belting, it is also good practice to place the driving engine or motor at the centre of the main shaft, if possible.

For example, take a 100-horse power engine. Put it at the "end" of the main line shaft, and the shaft diameter would have to be considerably larger than where the engine is placed at the middle of the shafting in such a way that fifty horse power could be transmitted in each direction. In a case where at a central position the diameter would have to be only three inches, it would have to be four inches if placed at the end. And since 4-inch shafting weighs and costs nearly twice as much as 3-inch shafting, it is plain that this phase must be considered in the lumber mill layouts.

Speed, also, is important. Higher speeds are being favored more and more. This is largely due to the successful use of ball bearings. High speed doesn't mean high friction where designing is properly done, even with plain bearings. It isn't enough to hire a man to keep constantly oiling bearings, or turning grease cups up tighter. These designing and arrangement problems must always be considered from the initial conception and upward. Every point is of value, and where it wouldn't pay to change pulleys and shafting, except under very unusual conditions, the superintendent must again exercise his best judgment in reducing friction.

Very often instances have been called to my attention where investment in very small things has saved much money. The ratio is much greater than $4 to $5, as initially stated in this discussion. The ratio is sometimes as great as 29 cents to $80, or even greater.

To drive the meaning of the statements home more strongly, you have doubtless seen locomotives endeavoring to pull heavy loads without moving an inch. The drive wheels go around all right and the engine makes much noise. Just as much coal and steam are consumed as where the engine is actually pulling a heavy load. The tire and rail are being badly worn. Money is being wasted. Should the locomotive stay there all day, and continue to slip all day, the money loss might amount to $100. But, by investing in a few cents' worth of sand, which prevents such slip, the $100 per day is saved. Thus the ratio might be 10 cents to $100.

Similarly in the lumber mill. Investment in the little things to stop friction losses usually proves to be sound and worth while.

Maybe your bearings are improperly cared for. Maybe your windage losses can be materially reduced. Maybe your oil isn't performing as it should, and you should use a different grade. Maybe you are not using enough oil. Your pulleys and shafting may be so heavy that it would pay you to sell your present heavy stock and install something lighter and besides "clean up money" on the change. Your belts may be too tight. It is possible, you know, to run most belts nice and slack under proper treatment. Maybe your shafting needs aligning. Have you looked into these various little things? They are small, yes, but important.

Forest Survey of New Brunswick

Recommendations Made for Better Management of the Province's Timber Resources

The annual report of the Forest Survey of the province of New Brunswick which is being conducted by Mr. P. Z. Caverhill, states that New Brunswick, with the exception of some of the more favored valleys, is typically a forest country. Forests will continue to play an important part in the development of the province for many years to come, if proper care is used in the management of the timbered lands. The value of the lumber industry of New Brunswick at the present time is approximately $15,000,000 per year as shown by the following table:—

Sawn Lumber,	633,519	M. board feet, valued at	$9,902,202
Lath,	288,915	M. board feet, valued at	693,795
Shingles,	459,979	M. board feet, valued at	917,208
Pulp Wood,	141,533	cords, valued at	1,499,525
Pulp Products,	30,000	tons, estimated at	1,500,000
Poles, Ties, etc.		estimated at	300,000
Wood Using Industries		estimated at	250,000
Total			$15,062,730

If wood used by the settlers is included, another million dollars will be added to this total, giving a production of $16,000,000 per year, as compared with $20,360,596, which was the value of farm crops, according to the 1910 census. The annual revenue from the forests is now more than $500,000 annually. New Brunswick ranks second in both the per capita value of her lumber industry and the revenue received from forests. The per capita value of the lumber industry is $40.40, and the per capita value of the revenue received is $1.42. The forest survey shows that even this record could be exceeded if forest fires were kept out and logging operations conducted so as to favor the more important and faster growing species. Some 13,000,000 feet of saw timber are reported to be growing on the Crown land area, harvesting and marketing of which will yield, at present prices, more than $200,000,000, and bring the province a revenue of at least $16,000,000. "With the close of the war," the report says, "and the great demand for lumber during the period of reconstruction, prices are bound to rise, and as New Brunswick is more favorably situated with regard to transportation than any of the other lumber producing provinces, except perhaps Nova Scotia, we are almost sure to see this sum exceeded."

Referring to the logging industry in New Brunswick the report says:—

"Snow logging is almost exclusively followed throughout the province; the timber being felled and yarded during the fall, hauled on snow roads during the winter, and driven to the mills on the snow freshet in the spring.

"The country is peculiarly adapted to this method of logging; labor required in agricultural communities and at the mills during the summer is released with the advent of winter. The long cold winters, with abundance of snow, give every facility for hauling on cheaply constructed roads. Snow logging requires a minimum of capital, and there is little or no risk except in driving; a light snowfall, an early run off or a spring drought may hang the drive for the year, resulting in considerable loss in interest charges and depreciation on the logs.

"Thus snow logging has been carried on for generations, and has become so standardized that little change has taken place in years, except for minor details, for example, the saw has replaced the axe as the chief felling tool."

In regard to logging camps the report says:—"A little advance has taken place in the matter of camps, or housing facilities of the men. This is possibly due to the facts: 1st, that at the season when logging is carried on (winter) there is not the same danger from unsanitary conditions as if summer or all of the year logging was in practice; 2nd, the scattered nature of the timber makes the construction of more or less temporary camps necessary; 3rd, much of the logging being done by yearly contract, the contractor does not feel justified in expending any more on camps than is absolutely necessary. The bonus system of payment, camp sanitation and improved social conditions for the men, means of attracting and retaining a sufficient supply of efficient labor, which has occupied a large place in the thoughts and discussions of loggers in the west and which is being so successfully tried out during the last few years, apparently have not been an item of consideration here; pointing very clearly to the fact that in New Brunswick our logger has not had to meet the keen competition for efficient labor that the western logger has."

"The cost of logging," the report says, "is very high at present on account of the increase in wages and provisions. Very few lumbermen keep detailed statements of the cost of logging. The following figures, however, are approximate:—

Operation 2,000 M. F. B. M.

Yarding.—		
Supervision	$0.15 to $0.20	per M.
Felling and bucking	75 to 85	"
Swamping	35 to 50	"
Skidding	85 to 1.25	"
Camps	25 to 25	"
		$2.35 to $3.05 per M.
Hauling.—		
Roads	$0.50 to $0.75	per M.
Hauling	1.00 to 2.50	"
Supervision	.10 to .10	"
		$1.60 to $3.35 per M.
Total		$3.95 to $6.40 per M.

"Driving depends on the length and the conditions of the creek, and will run from $1.00 to $3.50, seldom exceeding $2.50 per M.

"So, logs delivered into corporation limits will run from $5.00 to $9.00 per M.

"Much improvement has taken place in recent years in the matter of logging waste, due to better market conditions, and a growing market for inferior material. This is not always the case, however, when logging is done by contract, and frequently one meets with considerable waste in high stumps, logs left lodged in the woods, oversized tops, etc. On some operations observed this waste reached 5 to 10 per cent. of the stand.

"This could be prevented by a system of logging inspection, and would not only pay for the inspection in increased stumpage, but would be money saved for the operator. The fault is due largely to the fact that yearly contracts are made for logging, the logger trying to keep the cost per thousand at a minimum. The contractor's sole object is to make as much profit as he can (frequently little enough), and he will not take out difficult lodged trees or go to any particular trouble to cut low stumps unless checked up.

"The slash disposal question is one that should receive the serious consideration of both the loggers and the Department officials. Slash disposal has passed the experimental stage and is being endorsed not only by forest administrators but by the loggers themselves in many localities. The cost for disposal varies from 25 to 40 cents per thousand, as practiced in Quebec, in similar stands, by lopping. Similar results have been secured in northern Saskatchewan."

Many Problems in Marketing Lumber

Marketing of lumber has come to be a science. With the world as its consumer, lumber must meet all manner of demands and have the goods on the ground at the time the buyer wants them. This calls for the highest character of modern salesmanship, the ability to anticipate and prepare to satisfy the desires of customers. With the coming of the great sawmills, rapid transportation and the added needs of building caused by progress and development in the art of building, the entire scheme of production and distribution of lumber has changed.

Gone are the old methods, and in the face of rising demands today, lumber is working out its great problem—the problem of efficient marketing and economical distribution, based upon the common good of all.

It might be well to understand that the centre of the construction industry in the world is the house, the "home" of the real estate booster. All the tall buildings, all the great structures fade into insignificance when they are compared with the millions of houses which have been and are necessary to supply shelter for human beings. In the lumbering business a common mistake has been to overemphasize the importance of city building, of the great structures in industrial centres.

This overemphasis has been inevitable under the system in this country, when every natural resource was at hand and every man was fortune chasing, forgetting the little things about him in a mad rush to build cities and coin fortunes from the natural wealth which lay all about him. This fact has much to do with the poverty of rural life in America, with the lack of adequate farm buildings, with the crush toward the lights of the city. And this lack of rural development has prevented from expanding one of the greatest markets for

Northwestern lumber, a market much greater and more permanent than the prospective markets in Australia or the Orient or Europe.

Marketing lumber has been too much on the haphazard plan, on the scale where immediate returns were necessary, following out the idea that bulk means profits and prosperity. It has been much easier and quicker to sell a cargo for foreign shipment than it has been to sell the same quantity of lumber among consumers at home, hence the quickest way was followed and the local market more or less neglected. It is nothing to the credit of the American people, and surely not to the credit of lumbermen, when world travelers brand the United States as the country with the poorest farm houses in the world, with modern houses in most of the cities, with shacks on the land and with true homes lacking everywhere.

Seeking Quick and Easy Markets

The annual cut of lumber in the United States is about 40,000,000,000 feet, figures incomprehensible to the lay mind. To find markets for this tremendous output is no small job, especially when it is considered that the same man seldom builds more than one or two structures during a lifetime. In the Northwest, under normal conditions, rail and ship have offered transportations and new fields have been opened nearly every year for part of the surplus product of more than 1,000 mills in Oregon and Washington alone. One of the first needs of a section when development begins is lumber, and until conditions become settled, more or less, the demand for building material continues strong.

When it was proposed that the Panama Canal be built, to offer a new world highway for commerce, Northwestern lumbermen expected to enjoy much better transportation facilities and to have opportunity to find new markets on the Atlantic coast and in South America. With the failure of the canal to carry traffic and with the European war, the lumberman has been left in a sorry plight, entirely without fault of his own. But the demand for lumber has not been lost in the people who are not being served; in fact it will be much stronger when the avenues of commerce are again active.

In seeking domestic markets, Northwestern lumbermen have been able to compete with Southern pine and other woods in every section of the United States. Rich fields have been developed in the central states where corn growing and wheat growing are the rule. East of the Rocky Mountains, even as far as Chicago, Douglas fir is popular, with the centre of its use in Nebraska, Iowa and the Dakotas. East and south of Nebraska the freight rate on Southern lumber proves a handicap against fir except in high-class stock and unusual lengths.

Unfortunately for the lumberman, rural development in the field in which he found his best market has been on the wane and the tendency has not been strong to build up the country towns and develop a new type of modern farm structures. On the other hand, the city development of the Atlantic coast, and even in the central states —where Southern pine was strongest—has been rapid, and tremendous demands for lumber have been made. In the building of ships and water craft, where Douglas fir must sooner or later find an immense field, the tendency of engineers and architects has been to persist in the use of goods tested out and found satisfactory, instead of working directly toward the better material to be found in the Northwest. Thus it is that shipbuilding—which industry should call heavily on fir forests—has been slow in development at any point on the Pacific Coast.

Senseless Competition

As if the natural handicaps which had to be overcome were not enough for Northwestern lumbermen to contend with, a senseless competition in selling—and even in manufacturing—was carried on year after year. This competition was the rock upon which near-disaster was found, when dull business gave busy men time to examine their affairs and ascertain the cause of their troubles. And this competition in output and in selling prevented organization of large selling schemes and the development of broad and stable markets. "Pocket" mining has always proved disastrous, and the same method of selling lumber brought little coin to the bank of the sawmill owner.

Lumbering is the third largest industry in the United States, at least in value of output. First in importance is the slaughtering of animals and the distribution of meats and meat products. Second in value of output is the foundry and machine shop business of the country. Each of these great industries has a highly organized and efficient marketing system, closely centralized, with plenty of capital to carry on the business and control prices and create new demands. Lumbering, alone, has been allowed to drift in matters of modern marketing, and hence the senseless competition and lack of scientific endeavor to stimulate the use of forest products in city and country.

It must be remembered that the lumberman works under entirely different conditions from those surrounding the meat packer. While the packer has been able to utilize everything but the squeal of the pig, the lumberman has been unable to operate his individual plant without immense waste, without loss which seems to be needless. The packer has found it cheapest to take his raw product to a great industrial plant, while the lumberman has found it expedient to establish his manufacturing plant near his source of supply of raw material. In this way nearly 50,000 sawmills have been established in this country, against, say, a few score packing plants to serve 100,000,000 people—and more. This very lack of the highest efficiency in manufacture should have been compensated for in marketing, but such has not been the case up to date.

Particularly in the Northwest has it been difficult for the small plants to operate with a minimum waste. Markets have been at great distances and demands for lumber of a wide range of grades and kinds have made it difficult to dispose of the output of an ordinary mill at fair prices and with profit to the manufacturer. Freight charges and cargo rates have been high, for at all times great distances have had to be covered to reach open markets. With tremendous waste in forest and mill yard, profits have been greatly reduced and the business of lumbering has not been satisfactory either to the operator of mills or the communities in which operations have been carried on.

A study of the map of the United States, together with census figures of population and rural development, will show clearly that there are two great domestic fields for the consumption of fir lumber and cedar shingles. One of these fields is along the Atlantic coast, and can only be opened through transportation facilities afforded by the Panama canal. All the Atlantic coast country is well settled and immense demands for lumber come year after year. In the section north of Philadelphia Northwestern fir can compete with Southern pine, when freight rates through the canal are made on an equitable basis. In order to control this business Oregon and Washington mill owners may be compelled to build their own line of ships, but that would be a good business proposition in view of the possibilities of marketing fir lumber for many years to come.

The second great field for fir lumber and cedar shingles lies in all the section of which Chicago may well be considered the centre. Again, we find the central states well populated, with development going on rapidly. Here is a field which has been controlled, largely, at least, by Southern pine during recent years. As far east as Omaha fir has found rich territory with fair competition. Until the present time it has not been deemed wise to attempt to break into the Chicago territory except with the highest class of stock and with timbers which have not found direct competition in the commercial field. The introduction of fir has thus been made under the most favorable conditions, except as to freight rates.

After all, the great field for the increased use of lumber will be found among the people themselves, the people who live on the land, the people who are developing the new agriculture in this country.

Tremendous development is going on in a score or more of irrigated districts, with large areas of land being converted into small home tracts, susceptible of accommodating population nearly as dense as the average country town. With this development, and made necessary, largely, by it, is coming more scientific farming and better farm management. The first thing that is needed under the modern farm management is new buildings, houses, silos, implement sheds, poultry and hog houses. In all this construction wood is the natural material to be used, and at the present time among the men on the land there is not the foolish prejudice against wood on account of the alleged fire hazard that exists in the city, the "educational" work of the substitute promoters not having permeated the country to the extent that the city has been "informed."

Farm Buildings National Need

The lack of comfortable farm houses is one of the great drawbacks of agriculaure and one of the most effective barriers to successful life on the land. Country women, above all others, suffer from the lack of houses, not expensive places in which to live, but comfortable houses with at least some of the modern conveniences which can be provided at minimum cost. It would require several billion feet of lumber each year to supply this need, a need which the very success of the country demands be met, and met soon. The lumbermen of the United States, and particularly the lumbermen of the Northwest, have a first duty in making the purchase of lumber easy and simple, and the planning of structures a pleasure instead of a disagreeable task.

The construction of the house is primarily the job of the wife, for in it she must spend her life. The house is the longest used of any of the necessaries of life, and it is the least thought out. Men give as little thought to the construction of a house—and frequently less—than they do to the purchase of an automobile, which may go out of style in a year and be traded for mining stock, with little loss. In the construction of houses people need advice, they need assistance of the practical sort, and this they have not been able to get in a simple, direct way. When lumbermen use the same enthusiasm and skill in planning and selling houses as automobile makers use in teaching people to ride fast, the farm building problem in this country will disappear like the dew.—Portland Evening Telegram.

Striking Statistics on Retail Profits

Official Results of U.S. Government Study Show City Yards Make Six and a Half Per Cent. and Country Yards Seven and a Half to Eleven.

In a recent report entitled "Some Public and Economic Aspects of the Lumber Industry," Wm. B. Greeley, assistant forester of the United States Forest Service, deals in great detail with every phase of the lumber industry. Some of Mr. Greeley's conclusions we have already published. One of the most important and interesting sections of the report is that which deals with Returns in Lumber Retailing." Upon this subject the report states that the 11 Middle Western States where lumber distribution was studied contain approximately 11,000 retail yards. Their annual volume of business is estimated to be 7,067,751,000 board feet, probably 95 per cent. of the total retail consumption of lumber in this region.

The essential facts about the operations of various groups of retailers in these States are given in the following tables, based upon the business transacted from 1912 to 1915, inclusive. The operating expenses include a reasonable salary, commensurate with the general scale throughout the trade, for the owner or executive in charge of the yard, the depreciation of buildings and other property used in the business but not of lumber stocks on hand, repairs and renewals, and bad accounts prorated over the volume of lumber handled. Interest on borrowed funds is, however, excluded. Where a number of line yards are maintained by a single company the expense of the central office has been prorated over the total volume of lumber handled and included in the operating costs of the average yard.

These calculations are based (1) upon the investments found at retail yards, although partly required in many cases for distributing other products than lumber, and (2) upon the operating costs for handling lumber alone. Where other goods were carried by the same dealers the current expenses chargeable to lumber were segregated in accordance with the proportion of lumber sales to the total, dollar for dollar.

Costs and returns in lumber retailing in city yards.

Group of yards.	Average investment per yard.	Average selling price per M feet.	Gross profit per M feet.	Operating expense per M feet.	Net profit per M feet.	Net profit in per cent on investment.	Annual volume of lumber handled per yard.
						Per cent.	*M feet.*
22 annual yard operations in Chicago (8 dealers)	$194.281.46	$27.15	$5.90	$4.73	$1.17	7.31	12.148
49 annual yard operations in Minneapolis (17 dealers)	58.913.40	26.77	5.85	4.90	.95	5.99	3,653
24 annual yard operations in Kansas City (8 dealers)	104.465.36	25.41	5.65	4.48	1.17	6	5,348
Average of 95 annual yard operations	119.220.07	26:44	5.80	4.70	1.10	6.69	7.105

On the volume of sales, the gross operating profit averaged 21.95 per cent. and the net profit 4.16 per cent.

Costs and returns in lumber retailing in country line yards operated by large companies.

Group of yards.[1]	Average investment per yard.	Average selling price per M feet.	Gross profit per M feet.	Operating expense per M feet.	Net profit per M feet.	Net profit in per cent on investment.	Annual volume of lumber handled per yard.
						Per cent.	*M feet.*
1,270 annual yard operations in Minnesota, North Dakota, and South Dakota (5-9 companies, 202-374 yards)	$22.397.37	$31.24	$7.25	$4.24	$3.01	12.53	930
1,000 annual yard operations in Missouri, Kansas, and Oklahoma (8-11 companies, 302-356 yards)	20.610.59	29.73	7.07	4.99	2.08	7.43	735
173 annual yard operations in Iowa and Nebraska (2-4 companies, 22-83 yards)	21.915.63	31.29	7.17	4.33	2.84	11.9	920
Average of 2,443 annual yard operations	21.641.20	30.75	7.15	4.50	2.65	10.7	864

[1] The lower figures give the number of companies and yards from which data were obtained for the different years.

On the volume of sales, the gross operating profit averaged 23.26 per cent. and the net profit 8.71 per cent.

Returns were obtained also from 88 town and country yards operated by independent retailers, on the business transacted in 1914. These yards averaged $47,177 in the volume of annual sales. Their gross profit ranged from 12 to 40 per cent. of the volume of sales, averaging 20.17 per cent. Their operating expenses centered between 12 and 15 per cent., and their net profit averaged 7.31 per cent. This was equivalent to 7.46 per cent. on the reported investment.

Inquiries were also sent to over 3,000 farmers' stock or co-operative companies in the Middle West. The replies indicate that about 10 per cent. of these companies, which enroll 400,000 members in the 11 States where the investigation was conducted, handle lumber. In the case of companies not engaged in handling grain, the gross profit on annual sales of lumber, averaging $52,000 per company, centered between 12 and 15 per cent. Where lumber was merged with grain, the gross profit on an average annual business of $200,000 per company ranged from 3.16 to 10.89 per cent. In lumber sales only it was found that these companies aimed at a margin of from 15 to 20 per cent. on wagon trade and from 10 to 15 per cent. on estimates and bill sales. The operating costs ranged from 2 to 6 per cent. of the sales in the case of companies handling grain, and on the reports received, appeared to be close to 10 per cent. with companies handling only lumber and building supplies. The net profit ranged from 5.7 to 15.1 per cent. on the investment in the first instance, averaging around 10 per cent.; and from 2.8 to 5.3 per cent. in the second class of companies, with one concern reporting 6.8 per cent.

For the great bulk of the trade at the yards studied, therefore, the cost of retailing lumber ranges from $4 to $5 per thousand feet, exclusive of a profit of from 75 cents to $3. The returns in this branch of the business range in the majority of cases from 6 to 12.5 per cent. on the money invested. The average profit of city retailers appears to be between 6.5 and 7 per cent., and of country retailers, aside from farmers' co-operative yards, between 7.5 and 11 per cent. on their investment.

An important factor entering into these costs is the volume of lumber handled. Data based upon a large number of annual yard operations in towns of a population of 2,500 or less indicate that the actual cost of merchandising averages 11 or 12 per cent. when the yearly sales aggregate $40,000, and rises to 23 per cent. when the annual sales drop to $10,000 or less. The larger volume of business can be transacted at a cost of about $3.60 per thousand feet, whereas the cost of handling the smaller volume amounts to about $7. This difference arises, of course, from the fixed charges for salaries, rent, etc., incident to maintaining a retailing establishment. The number of retailers in the smaller towns, which consume over half of the lumber distributed through retail yards in the region studied, is thus an important factor in the cost of serving the public.

Broadly viewed the returns in lumber distribution thus appear to average higher and to be more stable than those in lumber manufacture.

The Cost of Lumber to Consumers

Why has the cost of lumber gone up?

Retail prices at the larger towns in the Middle West usually follow the ups and downs in mill prices and often vary considerably in the same place. Prices are higher in the country, partly at least with good reason, and rise or fall more from local competitive conditions than the influence of the general market.

A fifth or more of the cost of lumber to consumers is eaten up in railroad freights; retailers take about the same amount; and manufacturers, on the average, little more than one-half. Rising costs of transportation as timber shortage has moved the mills farther and farther from the bulk of consumers is an important factor in the increasing cost of lumber. Other causes lie in the greater demands made upon the retailer by the public, in higher labor costs, and in the decreasing purchasing power of money. At that, the rise in lumber prices, though very marked during the ten years before 1908, has not been greatly different from that of most commodities; and since 1907 lumber has fallen behind.

The immediate interest of the consuming public in lumber is the price paid for it. Prior to 1908 there was a general advance in lumber prices. The belief became common that lumber cost too much; that its rising price represented more than normal industrial changes and was influenced by combinations in restraint of trade. This belief was strengthened by the disclosure, through public agencies, of practices on the part of lumber manufacturers and distributors which sought or implied the maintenance of prices and other restrictions upon competition. The attitude of the average man toward the industry and in part toward the forest problems of the country has been influenced by this feeling regarding lumber prices.

One of the most important functions of a study of the situation,

therefore, is to throw such light as may be possible upon the rising cost of lumber to its users.

The report then gives diagrams showing the course of retail prices of various species and grades of lumber from 1912 to 1914, at Chicago, Minneapolis, Kansas City and small towns of Nebraska and Colorado. These diagrams are based on actual sales from the records of retail dealers; not upon list prices. In the cases most commonly met, it was found that retail prices followed mill and wholesale prices closely, keeping from $4 to $8 above the latter. The records also showed that while list prices of different dealers at the same point might be approximately the same, the prices actually received varied from $1 to $3 or more per thousand feet.

Broadly speaking, the report says, it seems probable that the bulk of the consumers in the 11 States where the investigation was conducted have obtained cheaper lumber by reason of the downward fluctuations in wholesale prices.

A comparison of the average prices obtained by city and country dealers shows that the latter received from $2.50 to $4 more per thousand feet than the yards supplying city trade. This is due in part to the higher average cost of the lumber handled by country retailers, arising from heavier transportation charges and the higher quality of stock carried by them, and in part to higher gross profits. The latter is undoubtedly influenced somewhat by the greater cost of small orders. There seems to be no question, however, that the country trade in this region yields a higher net profit than the city trade. The price changes from year to year, although all reflecting the high mark of 1913, are also less sharp at the country than at city yards.

That a farmer pays more for lumber than the city man is borne out by a comparison of the rates obtained in towns having a population of 500 or less but with two or more lumber yards and similar points carrying but one yard. Figures obtained from 55 annual yard operations at the former and 24 at the latter, covering the period from 1912 to 1915, indicate that an average price of $31.04 per thousand feet is received by dealers at points having two or more yards, as compared with $32.70 at one-yard points.

This difference results from many factors, varying at different points and seldom uniform over wide areas. Restricted competition in many classes of country trade is unquestionably one of them, as well as higher operating expenses and often a higher cost of stock. There is no question that, by and large, country consumers in this region pay more for their lumber than city consumers, as indeed they do for other commodities.

What Becomes of the Retail Price

The next point of interest is the distribution of the money paid by the consumer for the average thousand feet of softwood lumber among the various agencies which share in its manufacture and distribution. From the average thousand feet sold through city yards, bringing $26.44, the manufacturer received $13.95, the wholesaler $0.92, the transportation companies $5.77, and the retail dealer $5.80. From the average price paid to country line yards, $30.75, the manufacturer received $15.94, the wholesaler $1.06, the railroads $6.60, and the retailer $7.15. The value of standing timber, averaging probably $3.50 or $4 per thousand feet, is included in the manufacturer's portion.

The distribution of the consumer's price varies enormously between different grades of lumber and different market points. The amounts taken by the wholesaler and retailer are relatively stable—the former varying between 3 and 4 per cent. of the delivered price and the latter between 21 and 29 per cent. The division of the balance between manufacturer and transportation company is governed (1) by distance from mill to market, and (2) by the grade and relative selling value of the lumber.

Since lumber freights are uniform for all grades and based on weight, the railroads obtain a much larger part of the retail price on lumber of low value than in the case of the higher grades. On No. 2 yellow pine boards, for example, sold in Chicago for $22.25 per thousand feet, the mill received $9.80, or 44 per cent.; and the railroads $6.25, or 28 per cent. But on shipments of flat-grain yellow pine flooring, seasoned and dressed to a light weight, the manufacturer received $17.60, or 55 per cent. of the selling price, and the railroads, $5.50, or 17 per cent. Similarly, No. 1 dimension Douglas fir, selling in Minneapolis for $27.35 per thousand feet, returned $6.80, or about 25 per cent. to the manufacturer, and $11.70, or nearly 43 per cent., to the railroads. On the other hand, seasoned vertical grain fir flooring, selling in the same market for $41, netted the manufacturer $20.35 and the railroad companies $9, or about 50 and 22 per cent. respectively. On the grades of lumber retailed in the middle western markets as a whole, the manufacturer receives from 25 to 60 per cent. of the delivered price, and the transportation companies from 15 to 45 per cent., running up as high as 50 per cent. on common grades of Douglas fir shipped from the West Coast.

Advertising for the Retail Yard

Service and Performance Described in Good Advertising Sure to Produce Quick Results.

One of the ways in which retail lumbermen can benefit by the co-operation which they obtain from forming a trade association is in connection with improving their advertising. Some retailers have not yet realized that advertising can be made their greatest trade stimulant; that they can get larger returns from money spent in advertising than from any other money they lay out. Yet this is the case. It has been proved to be the case thousands of times under thousands of different conditions, and the situation has never yet developed in which the retail lumber dealer cannot prove it for himself, if he goes about it in the right way. No way is more effective than the way of co-operation. An association of retailers can appoint an advertising committee, or handle the matter in any other way they like, and have their advertising copy worked out more effectively than is possible otherwise. Moreover, the fact that a group of dealers makes a study of advertising is sure to stir up the individual members to a study of the other factors of their business which will help them to make bigger profits and satisfy their customers more thoroughly.

When an association starts to plan advertising for its members, and the members commence to make use of it, they come almost at once hard up against the question of "service." It is not much good advertising one's wares alone. "Service" is the thing that gets under the skin of a prospective or an actual customer and if one knows how to impress him with an appreciation of service rendered or about to be rendered, he will be sure of getting more of that man's trade. So, the first thing to look after if one wants to get results out of advertising is the service given by the yard, and the natural thing to do is to organize a "service" department; whether on an extensive or a modest scale, does not matter much.

Creating a service department is like throwing a pebble into a quiet pool. Its effect radiates in circles in every direction and leads one's imagination out into attractive trade areas which were never before imagined. Therefore, although one is sometimes inclined to belittle the continual reiteration of the term "service," it is only when this reiteration is not accompanied by performance that it becomes futile. Real service cannot be talked about too much. When you have established a service department in connection with a retail yard, and are satisfied that it is something of value to your customers, you can set forth upon a publicity campaign without fear, and make it as loud and strong as you like.

Moreover, a service department is a tolerably easy matter to talk about. Interesting advertising copy telling about "service" is much easier to prepare than a good deal of other advertising matter. We all know what fine "service" advertising is published in the popular journals. We see it every day in connection with almost everything we read. Retailers have no excuse for not applying the same line of advertising to their own business. Examples of retail service advertising are perhaps not very plentiful, but some that have been prepared by the trade extension department of the National Lumber Manufacturers' Association are good enough to recommend to any retailers. One of these, taken from a series, runs as follows:—

> **A DUTY**
>
> **We believe it is as much our duty to this community as local building material dealers to improve the homes of this community, as it is that of the local preachers to improve morals.**
>
> **Therefore,**
>
> **OUR SERVICE DEPARTMENT**
>
> **is maintained for you, not only to acquaint you with the different kinds of materials, but the newest ideas in plans and construction, and to help you put ideas into a definite form.**
>
> **FREE AND HELPFUL—FOR YOUR DAILY USE**
>
> **JOHN DOE LUMBER COMPANY**

Can you imagine anything more likely to set a man thinking about spending money? This advertising is strong, brief and to the point, and can be used with practical certainty of bringing in good business. We will publish a few others, coming from the same source, in future issues of the Canada Lumberman, and hope that many retail readers will make use of them. If we can give further help along these lines to anyone, we want to hear from them.

Loyalty of the U.S. Lumber Industry

Devoting Resources, Ability and Stocks to Aid Government—Record Camp Construction Work

Washington, D.C., May 26.—Itemized schedules of ship timbers and planking have been prepared by the lumber committee of the Advisory Commission to the Council of National Defence for both yellow pine and Western fir, covering all of the items of lumber required for the construction of the shipping board's standard type of wooden ship, and the committee has secured from the principal manufacturers of these woods in the South and West engagements to furnish the timber for as many ships as the board desires to contract for, at prices which are considerably below the present market prices for timber of this class. Manufacturers are ready to start sawing on this lumber now.

Considering that the lumber manufacturing firms of this country during 1914, 1915, and most of 1916 suffered severely from low prices, and have only recently begun to make a small profit, this action on their part is commendable.

The plans of the government for barrack construction have been carefully studied and recommendations made as to changes in design to reduce cost and utilize sizes and kinds of lumber most easily available to the section in which the barracks are to be constructed. An important part of these recommendations is one which points out the necessity of tight, warm construction in all barracks erected north of the thirty-fifth parallel.

Engagements on the part of the lumber manufacturers have been secured agreeing to furnish all lumber required for these cantonments at prices below the present market, but, as the work now going on is emergency rush work, needed before it can be finished, the suppiles must be drawn from local retail lumber yards, and the offers of the manufacturers to ship direct from the mills at much lower prices cannot be taken advantage of until the government can anticipate its wants far enough ahead to enable the shipments from the mills to reach the work before it is actually needed in construction. A saving of fully 25 per cent. could be accomplished if this could be done.

The production and assembling of lumber for aeroplanes, gun stocks, army wagons, artillery ammunition boxes, and many other articles requiring the use of wood, are daily being carefully studied and advice given to the government departments as to sources of supply, available stocks, and maximum prices which should be paid.

No Time Wasted in Camp Erection

Following is the story of the use of lumber in an army cantonment, and of the manner in which the American logging camp has been copied for regular army usés, in the building of quarters for the reserve officers' training camps. When the letters R.O.T.C. are seen, this is the interpretation: There are two camps at Fort Sheridan, each of 2,500 men, roughly, one camp for Illinois and one for Wisconsin and Michigan combined. Each camp is organized in fifteen companies of about 160 men each. Wisconsin and Michigan are in permanent barracks, except for four companies which, with the Illinois regiment, are quartered in cantonments on the south side of the reservation. There are quarters for two emergency companies with the four Wisconsin-Michigan companies, making a total of twenty-one companies quartered in the newly-erected wooden cantonments.

The quarters for each company are four buildings, placed end to end, with a 20-foot space between each. On the south is the mess hall, with a kitchen and two tables the length of the building, a la lumber camp, bench seats on each side of each table. The next two buildings are the quarters, with cots in each, for 80 men. North of these two is a bath-house.

The speed of construction of the camp was notable, and a most striking evidence of the ability of the typical American business man to meet emergencies. The contract for the construction of the buildings was awarded on Saturday evening, April 28. About noon on Sunday, April 29, the Edward Hines Lumber Company, of Chicago, received the order for the material, amounting to a total of some 1,400,000 feet. During the afternoon five auto truck loads of lumber were despatched to Fort Sheridan, to provide quarters for the working force engaged on the job. At 5 o'clock in the evening a train of 50 empty cars was on track in the yards of the lumber company. The entire train was loaded with the 1,400,000 feet on April 30, out of the stock of Northern, Southern, and Western lumber carried on hand. The contract called for all dressed lumber. The most remarkable part of the operation, therefore, was that some 400,000 feet of the shipment was run through the planing mills of the lumber company, as well as being loaded on the cars in the same day.

The Chicago and Northwestern Railroad delivered the trainload of lumber at Fort Sheridan on Tuesday morning, May 1. The Sumner Sollitt Company had its construction force on the ground, equipped with gasoline saws and all other devices for quick work. Ohio National Guard engineers staked out the company streets and buildings. The job was finished on May 10, in just ten working days, using only one shift of men per day. The largest number of men employed on the job at one time was 785. Here is what they built complete, ready for occupancy:

Forty-two barracks, 20 x 126 feet each.

Twenty-one mess buildings, 20 x 110 feet each, equipped with tables and benches built in regular logging camp style.

Twenty-one lavatory buildings, 16 x 63 feet, equipped with toilets, shower baths, etc.

One postal exchange building, 20 x 30 feet.

One telephone exchange building, 20 x 33 feet.

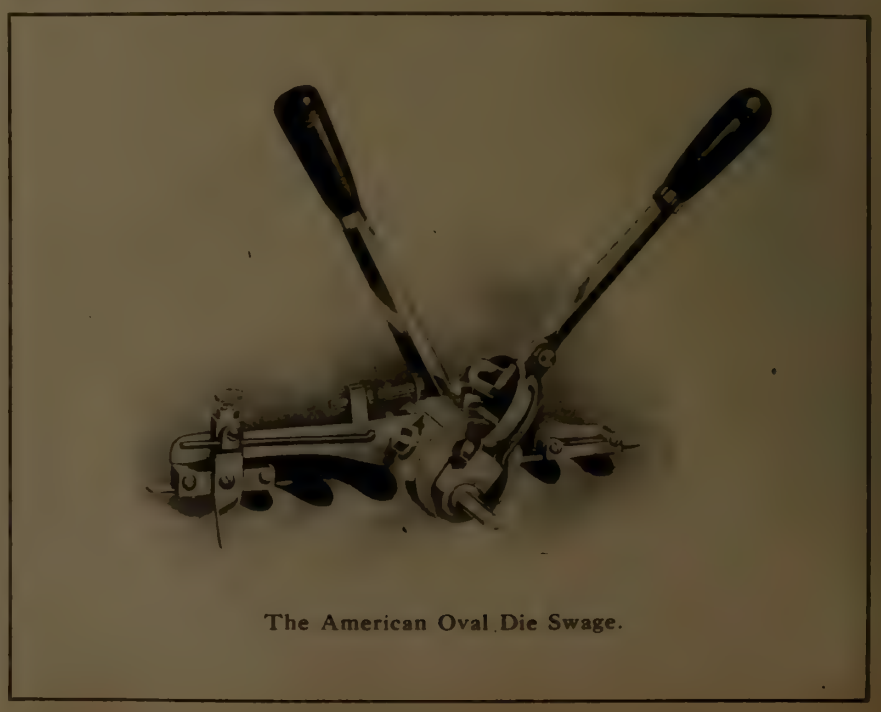
This is the story of one of the camps where officers will be trained for the new army, and it is duplicated in many other camps throughout the country, as there are fifteen reserve officer training camps in the country, requiring quarters for 35,000 prospective officers. The regular permanent barracks do not begin to provide room for all these men. This story of the Fort Sheridan camp is that of all other camps where cantonments are being built, and will be duplicated on a larger scale to provide quarters for the new army of 500,000 men, called out September 1.

The American Oval Die Swage

The Machinery Company of America, Grand Rapids, Mich., who are the distributors of the American Oval Die Swage which was placed on the market about two years ago, report a brisk and increasing demand for it. They state that they are receiving enthusiastic letters from users in the south, on the Pacific coast, and in Canada, all testifying to the efficiency of the swage and to its economy of upkeep. The American Oval Die Swage carries an oval die with four wearing surfaces the entire length, giving it, the company claim, from 200 to 1,200 per cent. more wear and longer life than that of any other swage die. The die is supported its entire length by means of two eccentric bushings which entirely close up the opening in the swage head, and eliminates any possibility of cuttings of steel from the teeth getting in and cutting out the bearings. The eccentric bushings operate in hardened steel bearings so that when the bearings become worn it is unnecessary to purchase a new head at a considerable expense, but a well-fitting bearing can be obtained by merely replacing the steel bushings at a very slight cost after which the head is practically as good as new. The openings through the eccentric bushings are slightly off centre, so that by turning the bushings over, the same results are realized as by having two dies of different eccentrics. Also, dies of different sizes and eccentrics may be employed in the one swage by simply using eccentric bushings to fit, which the company claim to be the most valuable and necessary for satisfactory operation. The swage is easily and quickly adjusted and assembled. By removing one nut the die lever, bushings and dies can be immediately removed. For the special benefit of those who are not familiar with the adjustment of the swage, the position of the anvil on the tooth can be readily seen.

The features embodied in this swage make it most efficient, durable and economical to operate and are rapidly creating an increased demand for it.

The Machinery Company of America will gladly mail, upon request, to anyone who is interested, further information and a catalogue of their complete line.



The American Oval Die Swage.

Utilizing Waste in Hardwood Mills

By-products Being Prepared for Furniture Factories—Equipment Required and Operating Methods

By P. L. Buttrick*

Among the largest users of hardwood lumber are the furniture manufacturers. Their requirements as to shapes and sizes of materials used are quite different from those of the general construction trade, since they can, to a much larger degree, utilize pieces of small size and irregular dimensions. Examples of stock for furniture are bolts for chair rungs, table legs, etc., usually in the form of short-length pieces with square ends, known in the trade as "squares." Rungs and legs can be turned out of miscellaneous stock on lathes, and short boards can be used for chair seats, backs, table tops, desk panels, etc. These are used solid or for veneer cores or stock, as the case may be. Hitherto they have largely purchased lumber of standard sizes and cut it down to suit their own purposes. Of late, however, certain enterprising hardwood firms have realized the possibility of making much of this small-sized furniture stock out of slabs and edgings, planing-mill ends, etc., and have installed equipment for this purpose generally along with their mills, and furniture firms are beginning to use this material more and more. These mills are variously called "dimension mills," "by-product mills," and the like.

The equipment of a typical plant of this kind in the Southern Appalachians and adapted to the needs of a single band mill, cutting from 30 M. to 40 M. per day, is about as follows: 1 carriage bolter; 1 circular rip saw; 1 gang bolter (Garland); 2 automatic cut-off saws, to which should be added a lath bolter and machine. The floor space covered is about 50 square feet.

Such a plant operated in conjunction with a mill cutting 35 M. should be able to produce 3,000 board feet of dimension stock and 5,000 pieces of lath in ten hours.

The machinery for such a mill would cost about $5,000; buildings and drying shed, etc., $1,500 to $2,000 more.

Waste can best be handled as it is in the ordinary lath mill—by arranging for the refuse conveyer to pass through the mill and from it to pick off and sort over the waste which is desired. Planing-mill waste, if used, can be brought in on trucks or by a conveyor, as is convenient.

One disadvantage of this arrangement is that all material must pass through the slasher, and thus often be cut to very poor advantage. To obviate this a special arrangement, adapted to mills not cutting more than 35 M., is in use. The slasher is entirely done away with—in its place is set a table onto which refuse from the slasher is deposited. A jump saw operates across this table. From it lead two conveyors, one to the burner and the other to the by-products factory. Two men operate this saw and are supposed to cut into convenient sizes all waste which is suitable for by-products and slash up the rest, so that it will easily pass through the refuse conveyor to the burner. Trimmer waste passes directly onto the waste conveyors.

When the burner and the by-products mill are situated on the same side of the plant the two conveyors can run through the latter side by side, so that any material wrongly classified can easily be transferred from one to the other. A conveyor can carry trimmer waste direct to the by-products mill.

Since two men cannot handle the waste from a mill of more than 35 M., this use of a trim saw, in place of a slasher, cannot be adopted in mills exceeding that capacity without modifications permitting the use of more than one saw. By lengthening the live rolls from the band mill past the chains running from the edger, a second saw could be added and the use of a slasher thus be dispensed with in large mills.

At the factory stock is sorted from the lengthwise conveyor. Stock of inferior grade or wood is placed on the lath conveyor. Slabs go to the carriage bolter, short boards or edgings to the rip saw or bolter. The carriage bolter rips slabs into short boards or edgings, as desired; they then go to the rip saw, or the bolter, and finally to the trim saws, after which they are graded and sorted and sent to the yard to season, generally under cover. This seasoning process requires from 60 to 90 days. Material is then ready for shipment to factories, although, if the plant is run in conjunction with a planing mill, short boards may be resawed for veneer or box shook stock or any other product requiring thin pieces.

One very great advantage of this form of waste utilization is that it does not necessarily require planing-mill or dry-kiln equipment, which are practically essential at sawmills manufacturing box shooks or other manufactured products from their waste. It also has the advantage of permitting the use of a large number of different woods, whereas generally a box factory must confine itself to one or two. Under proper management it should be more profitable than selling waste to pulp or chemical plants, and relatively few mills are situated close enough to plants of this kind to be able to sell to them profitably.

* Reproduced from the Journal of Forestry.

Nearly all of the common hardwoods of the Eastern United States have some value when cut into small-sized dimension pieces. A successful hardwood mill man, who has had much experience in the by-product line, declared the value of the common hardwoods to be about in the following order: Oak, yellow poplar, chestnut, beech, birch, and maple. Basswood, cucumber (Magnolia), etc., are occasionally run in with poplar, as they are in straight lumber manufacturing. Other species, such as black and red gum, black walnut, ash, cherry, cottonwood, etc., could doubtless be used where they are sufficiently plentiful, as could be certain of the softwoods, notably white pine. As a matter of practice, such scattering softwoods as are cut on the average hardwood operation are generally turned into lath rather than chair or furniture stock. Nearly any size stock below that of standard lumber can be made at such plants, but in such as have been visited by the writer it is the general policy to concentrate manufacturing on certain sized pieces, generally with dimensions in whole or half inches.

At a certain plant the following cutting sizes are regarded as standard: 1 in. x 1 in. to 3 in. x 3 in.; lengths, 12½ in. to 60 in. One-inch squares are regarded as the least profitable class of stock, although, of course, the easiest to obtain. Oak, 3 in. x 3 in., used for table legs, is said to be the most desirable stock.

The operating costs of by-products (not including lath) of such a plant as described are about as follows:

	M. feet b.m.
Manufacture	$10.00
Piling and seasoning	2.00
Loading	.50
Supplies	1.00
	$13.50

The success of such a plant, when run in conjunction with the average hardwood mill, will depend to a considerable measure upon its proximity to markets and its selling connections. The future will probably see a greater extension of the idea.

William Rutherford Elected Chairman

Mr. William Rutherford, of William Rutherford & Sons Company, Limited, has been elected chairman, and Mr. Howard Smith, of the Howard Smith Paper Mills Limited, vice-chairman, of the Montreal branch of the Canadian Manufacturers' Association. Captain J. H. A. Acer, of the Laurentide Company, and Mr. W. J. Sadler, of Sadler & Haworth, Limited, are members of the executive committee. On taking the chair at the annual meeting, Mr. Rutherford discussed the proposed system of taxation of war profits, which he considered should be adjusted so as to bear equitably upon all monied interests rather than upon a selected few, whose money would ensure Canada's industrial development. With regard to the war, Mr. Rutheford said that recruiting had evidently reached such a low point throughout the Dominion that some form of compulsory service was necessary if those men who should go were to be sent and those needed here were to be kept at home.

The annual convention of the National Hardwood Lumber Association is to be held at Chicago, Ill., on Thursday and Friday, June 14 and 15. The programme includes a number of important addresses and a discussion of the changes proposed in the inspection rules. There will also be a complimentary banquet to members and invited guests on Thursday evening and a smoking concert and supper on Friday evening.

A large manufacturer in Northern Ontario advises us that it is impossible at present to prepare exact figures showing the cost of logging operations during the season that has just passed, but that this year their logs will have cost them about 35 per cent. more than the cost of a year ago. This increase, they say, applies pretty closely to all the operations on the north shore of Lake Huron.

Mr. Chas. H. Russell, formerly manager of the Montreal branch of Thos. Mackarell & Company, Ottawa, has opened an office at 514 Canadian Express Building, Montreal. He has started business on his own account as wholesale lumber dealer, specializing in fir, yellow pine and American hardwoods.

Mr. A. Greig, formerly manager of the woods department of the Standard Chemical Iron and Lumber Company, has joined the Seaman, Kent Company, as general manager. Mr. Greig's headquarters are at Toronto, where it is the intention of the company to locate its head office in the near future.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Cheese Box Veneer

Wanted a quantity of cheese box veneer and heading, standard stock. C. B. Moses, Carp, Ont. 8-11

Maple and Birch

Wanted several cars 4/4 No. 1 Common Maple and Birch; also few cars of thick stock, either dry or this year's cut. Box 583, Canada Lumberman, Toronto, Ont. 11-14

Wanted

Hardwood Pickets, either White or Yellow Birch, Beech, Maple or Ash, separately or mixed, 1⅛ in. x 1⅛ in. x 6 ft. 8 in., 1¼ in. x 1¼ in. x 6 ft. 8 in., 1⅜ in. x 1⅜ in. x 6 ft. 8 in., and 1⅝ in. x 1⅝ in. x 6 ft. 8 in. Can use these sizes in soft wood also.

P. O. Box 58,
11-12 Ogdensburg, N.Y.

For Sale–Lumber

Square Cedar For Sale

One car square cedar, 10 ft. to 15 ft. long by 9 in. to 12 in. square. For prompt shipment. J. Geo. Chalifour, Quebec, P.Q. 11-11

Crating For Sale

One hundred thousand feet of 4/4 Basswood, Ash and Elm Crating at twelve dollars f.o.b. Coe Hill. S. L. Purdy, Coe Hill, Ont. 11-11

Lumber For Sale

300,000 ft. B.M. 1 x 4 and up Clear and No. 1 Spruce.
400,000 ft. B.M. 2 x 4 to 2 x 10 Spruce.
Piled widths and lengths separate.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale–Machinery

Machinery For Sale

16 in. x 38 in. Wheelock Engine.
New Berlin Swing Saw.
24 in. Pony Planer.
Direct current Generator, 125 volt, 125 amperes.
No. 3 Jewel Dynamo Engine.

R. LAIDLAW LUMBER CO.,
11-14 Toronto, Ont.

For Sale

18 4-Wheel Trucks, Standard Gauge, 24 in. wheels.
1 Log Loader.
1 Double Drum Beatty Hoisting Engine, 7 x 12.

JOHN J. GARTSHORE,
58 Front Street West,
9-12 Toronto, Ont

List of Sawmill Machinery For Sale

Item No. 1—One Union Iron Works Upright Resaw, eight foot wheels with drive pulleys.

Item No. 2—One improved Mershon & Co. Horizontal Slab Resaw, 5 ft. wheels for 8 in. Saws. These Mills were used only three years.

Item No. 3—One Jump Cylinder, 10 x 12. Giddings & Lewis make.

Item No. 4—Three 6 x 8 Jump Cylinders.

Item No. 5—One Tug Smoke Stack, Size 34 in. x 23 ft. x 10 gauge Iron.

Item No. 6—One Three Saw Edger. Waterous make.

Item No. 7—One Smoke Stack—26 in. x 73 ft., with 7 ft. Spark Catcher. 10 gauge Iron, 40 ft. 12 gauge to top.

Item No. 8—One Timber Surfacer Cylinder Head—30 in. with Side Heads. 14 in. Shop No. 8461, Cut No. 202. McGregor & Gourlay.

Item No. 9—One Picket Machine. McKechnie and Bertram make.
All Machines in good working order.

Item No. 10—One Boiler, 60 x 14—54—3½ in. tubes, 70 lb. pressure.

Item No. 11—One Boiler, 60 x 12—54—3½ in. tubes, 60 lb. Pressure.
These boilers have been inspected by the Ontario Government, using 5 as a figure of safety.

The Pigeon River Lumber Company, Limited,
9-12 Port Arthur, Ont.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

WANTED A POSITION as Mill Foreman of band mill. Am capable of building mill, and first class millwright. Box 584, Canada Lumberman, Toronto, Ont. 11-11

POSITION WANTED by Hardwood Lumber Inspector for June 1st. Twelve years' experience on road, Quebec and Ontario. Satisfaction guaranteed. Apply Box 578, Canada Lumberman, Toronto, Ont. 10-11

LICENSED ENGINEER wants position on locomotive or donkey engine for logging or loading operations. Long experience. Now employed in B. C. but wants position in Ontario or Quebec. Box 561, Canada Lumberman, Toronto, Ont. 8-11

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

WANTED—A MANAGER to take charge of the New Brunswick Railway Company's timber lands in New Brunswick. The business of the Company is selling stumpage, and the Manager must have some knowledge of woods and mill operations.

Address The New Brunswick Railway Co.,
11-11 St. John, N.B.

Business Chances

Sawmill For Sale

Complete Sawmill for sale, cheap and easy terms. Capacity 20,000 feet per day. Field Lumber Company, Limited, Field, Ont. 11-t.f.

For Sale

Timber limit near Montreal, about 10 million feet of timber land, also saw mill, capacity 50,000 feet per day. For particulars apply to Box 581, Canada Lumberman, Toronto, Ont. 11-11

For Sale

Half interest in, or all of, the white, red, and jack pine, spruce, and cedar timber (estimated 20 million) on well watered Township. Can be operated two years without sleigh haul. Apply Howard Goxer, Coldwater, Ont. 8-11

Saw Mill For Sale

For Sale—sawmill, stave, heading and lath mill, in Ontario. Plenty of timber in sight. At a reasonable price. Location good. Reason for selling, retiring from business. Address, Box 587, Canada Lumberman, Toronto, Ont. 11-12

Side Line

Wanted salesmen calling upon Lumber Mills to sell Babbitt metals as side line. Good commission. Give full particulars as to lines represented and territory covered. Address, Babbitts, care of Canada Lumberman, 347 Adelaide Street West, Toronto. 10-11

For Sale

Timber Limits and Sawmill, estimated fifteen million feet of hardwood and ten million feet soft woods. Sawmill capacity 25 M. feet, shingle mill 125 M. Docks, tug, booms, logging outfit, houses, etc. Price $35,000.

The Manitoulin Lumber Co., Ltd.,
11-22 Walkerville, Ont

Sawmill To Rent

Will rent water power sawmill with grist mill in connection therewith. Profits average over $5,000 a year for the last ten years. $3,000 will finance.

I. E. WELDON, Solicitor,
8-11 Lindsay, Ont.

Business Opportunity

For Sale, up-to-date planing mill, with machinery in first class condition, on railroad siding and doing business of $225,000 annually. Desirable prompt-paying lot of customers go with it. Reason for selling, ill-health. Right price to party meaning business. P. O. Box 596, Buffalo, N.Y. 11-12

Jobbers Wanted

We wish to let several contracts to take out logs on Berth No. 6, being broken front lying between the Magnetawan and French Rivers. This berth is all convenient to Canadian Northern Railway.

John Harrison & Sons Company, Limited,
Saw and Planing Mills,
9-t.f. Owen Sound, Ont.

Mill Plant and Limits For Sale

43 Miles Limits on 31 Mile Lake, Gatineau Valley, containing Basswood, Spruce, Fir, Pine, Cedar, Birch, Maple and Pulpwood.

New Waterous 8 ft. Improved Double Cut Band Mill complete. Steam Alligator, Boats, Sleighs, Wagons, Harness, etc. For further particulars apply to

A. W. STEVENSON,
P. O. Box 2624,
8-t.f. Montreal, Que.

Miscellaneous

For Sale

One 10 station stationary Eco Magneto watchman's clock complete, practically new; suitable for sawmill or factory. Will sell cheap. Charles H. Nadeau, Port Daniel, East P. Que. 8-11

Definition of a "C.I.F." Sale

The foreign trade department of the San Francisco Chamber of Commerce has received so many requests for information as to what a "c. i. f." transaction means that it believes the following definition as published by the New York "Journal of Commerce" at its request will be of interest. This paper is considered an authority on all matters of this character:

"In a c. i. f. sale the seller agrees to supply the goods, to insure them during transportation and to pay freight upon them to destination. He clearly does not agree to deliver the goods at destination. When a seller is bound to make such delivery he does not agree to insure the goods, because insurance in that case is for his own protection. If the goods are lost before tender or delivery at destination the loss is that of the seller. Insurance is to be effected in such manner and against such risks as a prudent owner would employ if the risk were his own. If there is a war risk then the general obligation to insure is an obligation to protect against this risk as well as against others that may reasonably be supposed to have been in the minds of both parties when the contract was made."

The above decision is in reply to the following inquiry:

"Does the term c. i. f. mean that a shipper must deliver the goods on dock at destination with all charges prepaid? In covering insurance, what obligation is the shipper under inasmuch as there are so many different marine policies covering some more and some less risks? In the event of war risk insurance would the c. i. f. quotation require shipper to insure goods and assume the war risk premium?"——Pioneer Western Lumberman.

Pacific Coast War Activities

The appointment of Major-General George Goethals to take charge of building 1,000 wooden ships in the United States for for-

eign commerce means that within the immediate future every shipyard on the U. S. Pacific Coast will be speeded up to its utmost capacity, with the probable establishment of additional temporary yards to take care of the emergency order.

With the prospect of Russia becoming even more prominent as one of the principal centers of the European war, will come the problem of supplying that nation with all kinds of supplies and the administration is gathering all possible information concerning the ability of the Pacific Coast to furnish such suplies and the ships to carry them.

The probabilities are that building operations throughout the West will not be affected to any great extent by the war activities, and supplementing this with the building of a large number of wooden ships and the demands of the army for lumber for various purposes, should create a largely increased demand for forest products, which will be a partial consolation for the loss of business occasioned by the car shortage.

The possibility of an immediate appropriation for starting construction of the new naval base at San Francisco, the further establishment of a submarine base and the enlargement of the aviation school at San Diego, all mean that lumbermen will be called upon for prompt delivery of large quantities of material and arrangements are now under way to give governmental requirements quick and efficient service.—Pioneer Western Lumberman.

Carlile P. Winslow has been appointed director of the United States Forest Products Laboratory at Madison, Wis., to succeed Howard F. Weiss, whose resignation took place April 1st. Mr. Winslow graduated from the Sheffield Scientific School of Yale University in 1905, and entered the Forest Service in 1908. Since that time he has been engaged in research work in forest products. For the past four years he has acted as assistant to the director of the laboratory. His familiarity with the work of the laboratory and his knowledge of the problems to be studied have led to his selection as the successor of Mr. Weiss.

Before entering the Forest Service Mr. Winslow was employed in general construction and engineering work. He is an expert on wood preservatives.

PHILIP T. COOLIDGE
FORESTER
Technical training and ten years' experience. **Timber Estimating and Mapping. Supervision of Lumbering Contracts. Surveying. Forest Planting.**
Stetson Building, 31 Central Street
BANGOR, MAINE

Union Lumber Co.
Limited

White Pine
Red Pine
Spruce
Red and Jack Pine
Lath

Union Lumber Co., Limited
701 Dominion Bank Building
TORONTO, CANADA

Tender for
Timber Limits, Mill and Equipment

The following valuable property composing a going lumber manufacturing plant, is offered for sale in order that an Estate may be closed.

125 square miles, more or less, of timber limits under license from Ontario Government, conditions of which may be obtained from the Department of Lands, Forests, and Mines, which permits cutting of all kinds of trees; composed of Townships of Goschen, Carlyle, 67 and north half of Humbolt.

200 acres of land at mouth of river, on which are situated water-power sawmill, and mill dam, box factory, yard with docks and tramways, store, boarding house, blacksmith shop, machine shop, storehouses, stables, and about twenty houses for families. A steel tug eighty feet long; a steam launch and tow barge. Also camp equipment for two camps, including sleighs, horses, and all necessary rigging.

The territory is well watered and the river improved with dams, slides, etc. Blue prints may be obtained at the office of the undersigned.

Tenders for the purchase of the foregoing, endorsed, "Tender for timber limits, etc.," addressed to the undersigned, will be received up to Thursday, 28th June, 1917.

Terms: Certified cheque, payable to the undersigned, for 10 per cent. of the amount offered, must accompany the tender; 15 per cent. to be payable on the 1st of August, 1917; 25 per cent. on the 1st of November, 1917; 25 per cent. on the 1st of February, 1918, and 25 per cent. on the 1st of August, 1918.

Interest at 6 per cent. per annum from date of acceptance of offer to date each payment is made.

Cheques of unsuccessful tenderers will be promptly returned. The right is reserved to reject any or all proposals.

National Trust Company, Limited
20 King Street East, Toronto

Saw Mill For Sale

The Well-known Saw Mill of the Wm. Peters Estate, Parry Sound

The Wm. Peters Estate will sell en bloc or separately the equipment of their saw mill at Parry Sound. It consists of the usual machinery found in a mill producing 90,000 ft. per day, such as **Carriages, Boilers, Engines, Band Saws, Band Mill, etc.**

The mill was refitted and re-equipped in 1914, and has only operated three months since then. Some of the machines have never been used.

Address enquiries to

W. L. HAIGHT,
Solicitor,
Parry Sound, Ont.

Review of Current Trade Conditions

Ontario

The lumber trade in Ontario is holding up pretty well. Local enquiries, both in the country and city districts, indicate a fairly large volume of business in progress and cover the industrial and farm trade fairly generally. Prices are firm in all lines and there appears to be no likelihood of a decrease in prices for some time. Reports from wholesalers vary to some extent, a few finding that trade is inclined to be quiet, while a number of others report that it is splendid. Wholesalers selling to the United States are finding a strong market for all lines, an indication of this being the fact that even red and jack pine stocks have been selling across the line at good prices, being wanted for shell box purposes. Both lumber and lath are selling well in the United States, considerable shipments of the latter having been made during the past fortnight and a number of good enquiries being on hand. In fact the situation today is characterized by a good demand and inefficient stocks to meet it.

The shipping situation, although somewhat improved, as compared with a couple of months ago, is still far from satisfactory. It is still necessary for shippers to pay far more attention than formerly to the problem of getting their shipments through, and even then they find it impossible to meet the wishes of their customers in regard to making delivery. The actual car service, while unsatisfactory, however, is much better than it was two months ago, although during the past week or two there has been a slight falling off in the supply. The shortage of cars in Ontario is indicated in a striking manner by the fact that the firm of contractors who are erecting the new plant at Peterboro for the Quaker Oats Company have found it advisable to purchase their own freight cars.

A new situation which is complicating matters for northern Ontario manufacturers and shippers is the increased cost of lake freight. This has now advanced from $2.50 and $3.50 per thousand feet to $5 from points in Michigan to Chicago and Tonawanda, and even at these prices very few bottoms are available. The shipping companies account for the advance by the scarcity of labor. Water freights are now almost equal to those by rail. Firms along the north shore are doing everything they can to rush shipments across to United States points, in anticipation of a duty of 10 per cent. ad valorem being placed upon everything imported into the United States. Shortage of vessel space is handicapping them considerably in this effort, but a fair quantity of stock is being shipped.

The hardwood situation continues strong, stocks of all descriptions being scarce and the demand good for all lines.

Eastern Canada

The lumber trade at Montreal has shown no important change during the past fortnight. There is a fairly extensive business, much of it being in connection with the shell box industry, and the old scarcity, both of stocks and cars, continues. Prices continue firm throughout the list. It is difficult to do anything in the way of foretelling the price situation, as there are fairly reasonable arguments to be put forward both for further increases and for something in the way of a decrease. Exports to Great Britain show an increase. There has been some shipment also to South Africa of late. Steamship companies are refusing to make any future space contracts, claiming that space will not be available, and some exporters are disposing of their stocks for the home markets. The whole situation seems to depend to a great extent on the future course of the British Government in regard to purchases of Canadian stocks. Higher prices are predicted for pulpwood on account of increasing costs and scarcity of labor. River drivers are now obtaining $60 to $65 a month and other labor has advanced in proportion. Contract pulpwood is now bringing $12 a cord for rough wood f.o.b. cars at shipping point with a 12c to 14c rate and $13.50 is reported for prompt shipments. Pulpwood is costing from $6.50 to $7 on the banks of the river, out of which the farmers are paid from $5 to $5.50.

The lumber situation at Parrsboro, N.S., is unlike that at any other previous corresponding period. The quantity of logs taken out last winter was about equal to that usually taken out, as the season was very favorable. Moreover, an exceptionally large quantity had been carried over from the previous season. In spite of this, not a single deal has been shipped across the Atlantic. One Parrsboro dealer has recently commenced a new line of trade with Boston, whither he has shipped by rail four car loads of hardwood deals. Shipbuilding is progressing vigorously along the Parrsboro shore. The same is the case in many parts of Nova Scotia.

The government has prohibited all shipments of deals and lumber from St. John, N.B. Mill men, however, are largely sold up and their only concern will be that of obtaining space to pile their future output. Prices are unchanged, spruce deals bringing about $22 per M. and 2-in. stock for the United States bringing $22 and up. St. John mills are sold out of shingles. Refuse lumber is bringing $15 to $16 f.o.b. mill St. John. Nearly all the St. John river drives are in safe waters. Logs are selling at $15 per M. and battens at $11 to $12 per M.

The demand for lumber in Eastern Canada is increasing steadily, particularly for spruce, which is selling well in the markets of the eastern States. A considerable quantity of Canadian spruce is going to New England by rail and finding a ready market. Box manufacturers are doing a large business. The wood pulp demand for spruce continues on a very active scale with attractive prices, and many loggers are selling their stock for this purpose instead of disposing of it to the sawmills. The base quotation for spruce at Boston remains firm at $36. Random prices are steady at $30 to $31 for scantling, $33 to $34 for 2 x 8 in., $35 to $36 for 2 x 10 in., and $36 to $37 for 2 x 12 in. There is a scarcity of spruce boards which are selling at $35 for the best matched boards in stock lengths. Hemlock is firm at Boston and receipts by rail are light. Clipped boards 10, 12, 14 and 16 ft. lengths are selling at $26 and $27, while some are being held for $28. Shingle offerings are light at Boston and prices are firm. Good makes of white cedars are selling at $5. and $4.90 is the lowest price for anything that will grade extra clear. Ordinary white cedars are bringing $4.40 to $4.65. Lath are firm and stocks are light. good 1⅝ in. lath are selling at $5.50. For 1½ in. the price is $4.50 to $5.00.

The demand for white pine for manufacturing purposes in New England States is good, but house building is slow. Yards report that they are having a good business for repair and alteration work.

Great Britain

On account of the government control of lumber stocks in Great Britain and the effective manner in which it is being carried out, there is really nothing new to report. Arrivals from Canada are practically nil, and we are advised that large quantities of stock which have been purchased by the government at St. John, N.B., are not being moved, on account of the tonnage situation, a development which is causing a good deal of uneasiness at St. John, as the piling space for this season's cut will be very greatly reduced unless the stocks already sold are moved.

At London, the dock deliveries continue regularly and arrivals are very scarce, so that the stocks on hand are being reduced steadily. The home consumption is being utilized to a large extent, but is not sufficient to assist to any great extent in meeting the requirements of the market. Practically everything now being used is for war purposes, or for buildings which require alterations in order to furnish various kinds of munitions and other requisites of the war department. The requirements for this purpose and for temporary building for the large administrative staff have made a large hole in stocks during the past winter, but it is expected that this demand will be reduced greatly during the summer. Nearly all common grades of deals and battens have been exhausted and the better qualities will have to be used for the packing case trade. Prices continue to stiffen in these lines.

At Liverpool, the c.i.f. market shows no change. A few liner parcels continue to arrive and are quickly taken up at high values which leave little or no margin of profit for the importers, because of the price restriction imposed by the government. Forward buying has practically disappeared and stocks at Liverpool on shippers' accounts are all sold. Spot trading under existing conditions is very difficult, but the consumption is well maintained. Present indications point to the exhaustion of stocks in private hands by the end of June.

The trade at Manchester is seriously hampered by the government restriction and many lumbermen are expressing the opinion that the government took action before thinking fully of the consequences, which have included a severe blow to the retail timber and sawmilling industry. The latest reports indicate that trade conditions with these branches of the business are at an acute stage and that unless some change is made in the government regulations many will not be able to stand the financial strain.

The trade at Glasgow is quiet, stocks being scarce and the gov-

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

ernment regulations reducing the volume of trade greatly. The volume of new business is reduced to an absolute minimum. The opening of the import season from Montreal finds everyone convinced that arrivals this season will be of very small proportions unless reasonable facilities for importing are granted later on.

United States

The effect of the war situation upon the lumber trade in the United States is commencing to make itself evident, not so much in any definite restriction of trade, but rather in the introduction of conservative methods of doing business. This applies to wholesale and retail trade, both of which are somewhat quieter. The manufacturing activities of the industry, however, are continuing at a vigorous pace. The actual volume of trade is of really abnormal size, a condition which applies not only to the lumber business, but to many others. Many lumber manufacturers are remaining out of the market, for a variety of reasons, including the very heavy orders on most of the manufacturers' books, the continued difficulty in connection with shipments, and the uncertainty which still prevails in regard to the extent of government business arising out of the war. The United States Government has announced the schedules for the wooden cargo vessels which it will have constructed. Soft woods will be used almost entirely and each ship will consume about 1,380,000 feet, not including the quantity used for staging and building operations. The government's bids call for an entire ship bill.

Building permits from the larger American cities for the month of April show a slight gain as compared with March, but a decline of about 10 per cent. as compared with April, 1916, the largest decreases being in big cities. The railroad situation appears to be much the same as it was a fortnight ago, improvement being reported in some places and renewed embargoes in others. It is expected that the British Government will purchase extensive quantities of timber in the United States in the near future, as the stocks on hand, which are now all controlled by the Government, show a shortage of large and long timbers.

Southern pine manufacturers report an improvement in the car situation and that shippers are now able to fill quite a number of their back orders. Many of the mills, however, are not accepting new orders. Prices are very firm and increases are reported in many items. Shipments have exceeded production for several weeks past. Hemlock continues in strong demand and many operators are only accepting orders subject to their ability to obtain cars. A strong demand continues for white pine, the volume of enquiries increasing steadily. Prices are firm with a rising tendency. Many eastern consuming territories are practically out of white pine stock. There is no improvement to report in connection with the car situation on the north Pacific coast, and some mills are only accepting a very limited number of orders. Moreover, many of the Douglas fir mills have decided not to accept any orders until government requirements are supplied. Collections are reported fair from most parts of the country.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Shipments at a Standstill

St. John, N.B., May 21.—(Special to the Canada Lumberman.)—The last three weeks have seen considerable change in the St. John lumber market from a shipping standpoint. The government has prohibited all ships from taking any deals or lumber of any kind, and today not a deal is moving outside to the British Isles. As far as the mill man is concerned, he is largely sold up. It is going to be a matter of space to pile the lumber. This at St. John is more or less limited. While considerable stock has been sold to the American market, practically no cars can be had for American points, the C.P.R. refusing to allow any of their own cars to go over into the United States. Prices remain about the same, and no doubt there will be little change, as stocks of logs are not nearly up to normal. The pulp market is taking very large quantities of wood, and the market as yet is quite steady. Spruce deals are selling at about $22 per M.; 2-inch for United States, $22 and up. Laths are netting $3 at mills.

Shingles are about the only thing which cannot be had, as not a mill at St. John has any to offer at any price. Stocks of refuse lumber are also in good demand, bringing about $15 to $16 f.o.b. St. John, N.B.

The drives on the St. John are about all in safe waters, and will no doubt reach the booms unless a drought sets in. The clean-up drive has also arrived at St. John, having cleared the river from Fredericton to St. John and having picked up in the vicinity of 700,000 superficial feet.

Rafting operations will not begin for at least a month.

Prices for logs remain about the same—viz., from $15 per M. for logs and $11 to $12 per M. for battens. The price of up-river logs cannot be known until drives get safely in, when costs are figured.

Uncertain Conditions in Montreal Markets

Montreal, May 25.—(Special to the Canada Lumberman.)—Conditions are much about the same as outlined in the last report. Business is fairly satisfactory, largely for shell box account, but there is the old difficulty of getting lumber and also of securing sufficient cars. The transportation situation has improved, but it is by no means what it ought to be. Shipments from the West have increased, although advices from British Columbia state that the outlook is in the direction of lessened facilities. The C.P.R. have removed the embargo on public team track delivery at Place Viger, Montreal, otherwise there is no alteration in the position.

Prices are as firm as ever. Opinions are divided as to whether quotations have not reached the peak. On the one side it is argued that the continued scarcity, a likely heavy demand from the States, and the prospect of a decrease in labor, will be points making for stiff prices; while, on the other side, it is contended that the probable restriction in exports, allowing more lumber for home markets and a decrease in the demand for building due to higher costs, will tend to reduce quotations or to prevent the upward movement from going much farther.

The schemes for shipbuilding and for the construction of shipyards are factors in the general situation which must not be forgotten. Two important projects have a local interest. One is for a shipyard at Newcastle, fathered by the International Shipbuilding Corporation, Montreal, and the other is for a shipyard and drydock to be built by William Beardmore & Co., Glasgow, Scotland. Mr. T. S. Dickson, of Glasgow, and Mr. A. D. Swan, consulting engineer, Montreal, have inspected sites at Montreal, Quebec, St. John, and Halifax.

The exports to the United Kingdom have increased, and a small amount of lumber has also gone to South Africa. The steamship companies, however, have declined to make any bookings after this month, on the ground that no space will be available. Some of the exporters are selling their stocks for home consumption. The outlook is not cheerful, although it is believed that the government will later have to come to this country for a considerable amount of stock. The entire position is very uncertain, and depends largely upon the action of the British Government.

Recent developments in pulp and paper have been downwards. The demand, too, has not been so brisk, with the exception of newsprint. While buyers of pulp have shown a more conservative attitude, it is probable that the smaller buying is only temporary. The Ways and Means Committee have recommended that Congress keep paper and pulp on the free list, thus exempting them from the new scheme of war taxation proposed in the United States.

Pulpwood Prices Advancing

Montreal, May 25.—(Special to the Canada Lumberman.)—According to Mr. Campbell, of the Whyte-Campbell Lumber Company, Montreal, the outlook for pulpwood is in the direction of higher prices. All indications point to additional costs, with a possibility of a still shorter labor supply. Drivers on the river are being paid $60 to $65 a month, while the cost of other help has risen proportionately.

Pulpwood is now fetching on contract $12 a cord, rough wood, f.o.b. cars at shipping points, taking a 12c to 14c rate, and $13.50 has been paid for prompt shipments. This was on the Grand Trunk. The C.N.R. has promised a good supply of cars for wood from the Lake St. John district, to be shipped to the States. Canadian pulp companies which have hitherto offered small prices for the wood, are now in the market, with the result that quotations have advanced, the shortage of about 35 per cent. being a contributing factor. Pulpwood costs from $6.50 to $7 per cord on the banks of the river, the farmers being paid $5 to $5.50 for the wood. The farmers, however, are finding it difficult to obtain credit for provisions with the storekeepers, with the result that the farmers have to be financed for their wood.

Mr. Campbell stated that the disposal of the bark has proved up to the present a somewhat difficult problem. At their mills at Rawdon, P.Q., they had hitherto burned it, but recently had sent quantities to three or four mills, with a view of testing whether it could be used as fuel. His own opinion was that the wet bark, if properly fed

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FOR ALL COOKING
WHERE MILK IS NEEDED

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Give the cook KLIM, and he won't worry about the milk supply. KLIM is always fresh and ready to use. Open the can any time, use a quantity, replace the cover and KLIM will keep indefinitely.

It bulks small as compared with other milks, and thus cuts freight charges.

KLIM **will not sour.**

To convert into liquid, simply dissolve in water according to directions.

KLIM **is the milk for lumbermen—Try it.**

Place your order with your wholesale grocer **Now.** Sample sent on request.

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Quebec Office : Montreal, P.Q.
W. H. Escott Co., Limited, Winnipeg, Man. Calgary, Edmonton, Saskatoon, Regina.
Kirkland & Rose, Vancouver, B. C.

Plants: Brownsville, Ont.; Burford, Ont.; Belmont, Ont.; Hickson, Ont.

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We absolutely guarantee every Maple Leaf Saw. The fine Razor Steel used in all our saws is manufactured exclusively for us. Our secret tempering process refines and toughens the raw material to such an extent that Maple Leaf Saws will stand up under the most severe tests and last longer than any other saws on the market.

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into a boiler with Dutch ovens, would prove an economical fuel. It was essential that the bark be automatically fed by means of endless chains, so that it would not be dumped; if it were fed in a mass it would not burn, and experiments in this direction had proved a failure. Bark could be obtained for $20 a carload, say, 15 tons, or a cost of $1.25 a ton. A ton of coal is equal in heating value to three tons of bark, but whereas the cost of the latter is $3.75, coal would cost about $10 a ton. Sometimes bark is allowed to accumulate, during the summer, resulting in the gum leaking and forming a solid mass of the bark. When this is put into the furnace it chars instead of burning, but this result would be avoided if the wood were properly used. Bark also makes a good fuel if mixed with coal. Balsam bark is treated by one United States firm by extracting the gum, which is used in road-making, while a Canadian pulp company uses a certain amount of bark in manufacturing pulp for tissue paper.

Peculiar Conditions at Parrsboro, N.S.

Parrsboro, N.S., May 21.—(Special to the Canada Lumberman.)—The lumber situation in this vicinity differs from anything that has preceded it. Never since the first spruce deal was shipped across the Atlantic has a similar condition existed in Parrsboro at a corresponding time. Notwithstanding the scarcity of labor, the output last winter, owing to a remarkably favorable season, was nearly as large as usual, and as an unusually large quantity was carried over, the stock on hand this spring was fully up to the average. And yet not a single deal has been shipped to a trans-Atlantic port. Of course, the war is responsible for this condition. Last fall the Imperial Government purchased a quantity here, and was to have sent two transports for them in April—each to carry about four million feet. The steamers have not yet arrived, and no one appears to know when they are likely to come. One schooner has taken on a cargo of something less than half a million feet of deals, sold last year, but is still awaiting permission to sail, which may not be granted for many days to come. A dozen or more cargoes of boards, laths, and scantling have been exported to the United States, but the shipments in these lines are much the same as in former years. One lumber dealer, however, has made a new departure in this direction. He has shipped to Boston this week, by rail, four car-loads, or about seventy thousand feet, of hardwood deals. If this venture proves successful, he will follow it up, for it is claimed that he can find an immediately market for at least a million feet of hardwood, while the rate he has secured by through rail will compare favorably with the present excessive freights by water.

Shipbuilding is being carried on vigorously on this shore—as vigorously as the available labor will permit—and the boom is extending to all parts of the province. On this shore at present eight three-masted schooners are in course of construction. Their tonnage will range from 325 tons to 475 tons, and their registered tonnage will average over 400 tons each. The builders could sell many more vessels if they could get men to build them, and it is probable that the fleet now building will be replaced by others as soon as possible. It is said that one of under 500 tons now being built here will be followed by a vessel of about 1,800 tons register, and a number of vessels of about 100 tons each will be urgently needed.

Boston Market Steady and Strong

Boston, Mass. May 22.—(Special to the Canada Lumberman.)—There have been no material changes in the market for the last two weeks. Prices that prevailed then are in line with the market prices to-day. Conditions in this market are "spotty"—that is to say, there are a good many retail yards who are holding off additional commitments at this time on account of the very high prices and the fact that their business has dropped off during the last two weeks. The contractors are not very busy, and prospective building is not very encouraging on account of the high cost of labor and the high prices on materials.

A few yards who were caught with small stocks are now forced to buy more or less, so that with the small supply this demand holds the prices where they have been, and we do not look for very much change in prices in the next six weeks.—Wholesaler.

Liverpool Market Report

Smith & Tyrer, Ltd., Liverpool, Eng., report under date of May 1 as follows: Owing to government restrictions, heavy insurance, and the losses due to enemy submarine operations, the import during the past month of all kinds of wood goods has been upon a very limited scale. Stocks are getting perilously low, but this feature appears to be viewed with equanimity by the government. Chartering is almost at a standstill, and until there is a more definite declaration of policy by the controller with regard to shipments during the coming season, operations will be hampered and dangerous. Hardwoods are firm for the small stocks available. Spruce deals show a sufficient stock for current requirements, but arrivals are small; only a very limited import may be expected for some time to come. Values are well maintained at the maximum prices justified by the government restrictions. Hemlock is not wanted. Birch, both logs and planks, has been in quiet demand, with sufficient supplies. Pine is unchanged. Pacific Coast woods are operated with difficulty and under special arrangements.

Liverpool and Manchester Stocks

The following report on Liverpool and Manchester stocks for the month of April is furnished by H. W. Lightburne & Co., Liverpool, Eng., and their St. John, N.B., representative, John E. Moore & Co., Ltd.:

Spruce and Birch

Month Ending April 30, 1917.

Liverpool

	Import.			Consumption.			Stock.		
	1915.	1916.	1917.	1915.	1916.	1917.	1915.	1916.	1917
N.B. and N.S. Spruce and pine, stds. ..	2,880	230	1,310	2,700	1,380	1,120	3,770	5,640	7,520
Birch logs, loads ..	280	0	0	160	100	80	140	400	420
Birch planks, stds..	24	24	0	67	109	54	169	315	218

Manchester

Spruce, stds.	2,130	250	1,040	1,840	1,860	2,880	2,200	6,880	9,090
Birch logs, loads ..	0	0	0	140	40	100	60	540	300
Birch planks, stds..	18	12	11	85	127	97	194	327	430

Stocks in Manchester and Liverpool Combined

	1913.	1914.	1915.	1916.	1917.	
Spruce						
Manchester	5,240	9,880	2,200	6,880	9,090	
Liverpool	2,730	5,830	3,770	5,640	7,520	
	7,970	15,710	5,970	12,520	16,610	stds.
Birch Logs						
Manchester	260	240	60	540	300	
Liverpool	580	720	140	400	420	
	840	960	200	940	720	loads.
Birch Planks						
Manchester	418	261	194	327	430	
Liverpool	443	382	169	315	218	
	861	643	363	642	648	stds.

Wood's Struggle with Substitutes

With adroitness and daring the promoters of substitutes for wood have carried on a propaganda campaign in this country since 1900 which could scarcely have failed to net immense profits and build up businesses. The work has been nationwide, constant in its appeal, developed with more than ordinary ability, and was put over at a time when the public mind was looking for new things, when everybody was expecting the unusual and was more or less ready to pay for a bit of it.

Promoters of substitutes had a number of advantages. Nobody knew the cost of the goods, and nobody knew what the result of their use would be. In the beginning all was experiment and guess work. Every form of advertising was used and some of the work was of high class.

And all the time capital was building bigger mills, establishing new plants and developing new fields. This was true of the manufacturing end only, for the mill owners were too busy making lumber to give much time or energy to the selling of their product. The marketing end was neglected, just what the promoters of substitutes expected and hoped for. The investment in plants for the manufacture of substitutes was nothing as compared with the hundreds of millions invested in sawmills and manufacturing plants for the production of finished lumber.

A study of the methods of advertising followed by the substitute promoters and of the comprehensiveness of the campaign was made by W. A. Gilchrist, of Memphis, Tenn., for the National Lumber Manufacturers' Association. Mr. Gilchrist presented an interesting report in which he estimated that the promoters of substitutes for wood were spending more than $3,100,000 a year in advertising alone. Here is a list of the products advertised and the amount of money appropriated for advertising during the year of the inquiry:

Cement, $600,000; concrete fence posts and building blocks, $125,000; concrete piles and metal piles, $25,000; concrete sidewalks, $100,000; tanks, steel and concrete, $25,000; metal furniture and filing cabinets, $125,000; metal lockers, $25,000; stone, $75,000; brick, $150,000; fireproofing for houses, $125,000; iron fencing, $200,000; metal stone fronts, $100,000; metal cornice, $15,000; metal window frames and weather strips, $20,000; metal ceilings, $200,000; expanded metal and metal lath, $150,000; wall board and substitute for lath, $50,000; tile, cork, composition for flooring, $25,000; metal doors and trim, $150,000; metal window frames, $100,000; metal shingles, $50,000; slate roofing, $50,000; tile roofing, $50,000; composition roofing, $150,000; prepared roofing for farmers, $200,000; tin roofing, $100,000; paper boxes, $5,000; "metal lumber," $75,000; metal row-boats, launches, etc., $75,000; total, $3,140,000.

Specials for the Camp

Everything in the way of eatables is now getting so high that it is worth while looking around for a chance to economize in price.

We have raked together a few lines which we here offer, and if you are interested we should like to hear from you.

PURE GROUND COFFEE, in tins (a splendid drinker)	**.19**
CAMP BLEND TEA, Black,	**.28**
" " " Mixed,	**.24**
" " " Green,	**.19**
COMADRE FIGS, in taps	**.5¾**
PRUNES, reprocessed, 25's	**.8½**
3 CROWN MUSCATEL RAISINS	**.8¾**

Send us an order.

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The Glue Book

What it Contains:

Chapter 1—Historical Notes.
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Chapter 4—Methods in the Glue Room.
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Chapter 6—Selection of Glue.

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Railway and Track Supplies

For Lumber and Contractors' requirements

Rails, Locomotives, Accessories, Cars, Lion Brand Babbitt Metal

Correspondence solicited

Sessenwein Bros., Montreal

Shell Box Stock

In 1 inch and 3 inch Spruce

Merchantable and mill cull stock Spruce always on hand

SEND ME YOUR ENQUIRIES

Prices right—Prompt shipment.

CHARLES H. NADEAU

Port Daniel East, P. Que.

Australia's Imports of Canadian Timber

Douglas Fir from British Columbia Neglected in Favor of United States Stocks—Requirements for Public Works and for Joinery and Shelving Trades.

By H. R. MacMillan*

Douglas fir is the only wood imported to Australia for use in mining operations.

Imported woods for mining purposes are used chiefly in South Australia, where they are imported through Port Pirie for the Broken Hill mines, and in Western Australia, where importations are made through Freemantle for Coolgardie and Kalgoorlie gold fields.

The Queensland mining districts, which are growing in importance, also those of Tasmania, depend chiefly on native timbers, excepting where light and very strong timbers are required. The prospects are that the use of Douglas fir will increase in mining operations in Queensland.

One of the earliest uses of Douglas fir in Australia was in the gold mining districts of Ballarat and Bendigo. The production from these camps has greatly decreased, native timber still supplies a great proportion of their requirements, and the consumption of fir is now of little importance.

Fir has, however, given great instances of durability in the Bendigo and Ballarat mines, holding place for twenty years and more.

Though Western Australia is a great timber exporting state, the mines of that state find it necessary to use Douglas fir because of the large sizes in which it can be secured, and because of its light weight in comparison with the native hardwoods, a factor of great importance both in the railroad freight to the interior, the wagon haul from the railroad to the mine, and the working of the timber and the placing of it in the mine. The native hardwoods average 360 board feet to the ton weight, and Douglas fir averages 800 feet.

A few hundred thousand feet of Douglas fir are used annually in mining operations in Western Australia, chiefly in the form of 9-inch by 9-inch for timbers, shaft, and gallery sets. It is considered durable for this use.

The mines buy their requirements as needed through brokers or dealers at Perth.

Broken Hill is the chief user of mining timber in Australia. The mines, which use 18 to 20 board feet for every ton of ore raised, have had 28 years' experience of Douglas fir, and it now constitutes 90 per cent. of the timber used. About eighteen to twenty million feet of Douglas fir are imported to the mines yearly.

It is used above ground for extensive headworks, ore bins, stamp mills, and buildings. Buildings, ore bins, headworks up over twenty-five years in the hot, desiccating climate of Broken Hill are sound.

The greater part of the timber is used underground, where it is exposed to terrific pressure for three to six months, then buried. Douglas fir is preferred for such use to all the imported timbers yet tried, and to native hardwoods for the reason that it is cheaper to handle and bends and gives warning before breaking.

A fair proportion of the Douglas fir mining timbers are used in sets in shafts and drives used ten to twenty-five years. It is estimated to give an average life in such situations of fifteen to twenty years. Douglas fir 6-inch by 10-inch square sets put in twenty years ago are still sound. The moisture content of the atmosphere, averaging about 100 per cent., is stable and subject to variations.

Timber used above ground is placed on concrete footings.

Mining timbers for Broken Hill, known as Port Pirie cargoes, have so improved in grade owing to competition amongst exporters that the cargoes now being received, though still described as mining grade, are for the most part equal to merchantable. The grade higher than demanded is sold at mining grade prices and put to mining uses. Much good select and clear goes underground for props.

The usual specification for Broken Hill is well known, 8-inch by 10-inch and 10-inch by 10-inch by 12 feet, 14 feet, 16 feet, 18 feet, and 20 feet. This timber is purchased in cargo lots only, discharged at Port Pirie, and railroaded several hundred miles to the mines, where it is cut to shape. Large stocks are carried at Port Pirie and fair stocks at the mines.

Very little merchantable is specified; sufficient merchantable comes in the mining grade. Such merchantable as is specified is 20 inches by 20 inches and over in long lengths, sizes not imported in mining lengths.

The average annual purchases of the Broken Hill mine do not show any sign of increase, and must soon decrease seriously. The life of the field is estimated at less than twenty years.

The position of Douglas fir in this field is strong. The comparative costs of timber from the various possible sources are:

	Per M. ft. B.M.
Douglas fir	$30.20
Queensland timber	37.44
Tasmanian stringybark	47.52

A substantial increase in the f.a.s. price of Douglas fir would decrease the amount used.

It is interesting to compare the use of Douglas fir for mining purposes at Broken Hill and on the Rand in South Africa, two climatically similar regions. The Australian Eucalypts are not used to any extent at Broken Hill, Douglas fir being adopted, all factors considered, as the most suitable timber. On the Rand, on the other hand, pitchpine and Australian Eucalypts are used to a greater extent than Douglas fir, the latter not being considered sufficiently strong or durable. One species of Eucalypt (E. viminalis), although a native of South Australia and not used to any extent in the mines of that state, has in some way become favorably known to mining engineers in Africa, and is extensively grown in plantations for the supply of timbers to the mines.

Broken Hill mining men have in some way fallen victims to the idea that all Canadian Douglas fir is heavier than the United States Douglas fir, so much heavier that the extra freight on the Canadian Douglas fir, from Port Pirie to Broken Hill, is a serious item of expense. It is claimed by purchasing agents for the mines that United States Douglas fir averages 720 board feet to the long ton of 2,240 pounds, and that Canadian Douglas fir is appreciably heavier.

This theory has resulted in absolutely barring all Canadian quotations on the last 150,000,000 feet of Douglas fir purchased for Broken Hill.

It should be possible to demonstrate to the purchasing agents for the mines that, grade for grade, Canadian timber does not average heavier than that from the United States. Tests should be made and the results conveyed to Broken Hill purchasers in a convincing manner.

Public Works

The use of imported timbers is proportionately less in Australia for public works than in other countries depending largely on outside timber supplies.

Douglas fir is the only imported wood used in the form of timbers for irrigation works, falsework, trestles, and like heavy construction.

Up to the present Australia has depended upon native woods for heavy timber construction.

Native timbers have been used exclusively for the greater part of the railway construction undertaken up to date. Most of the railway lines in Australia hitherto constructed have traversed or started from native forest areas from which could be secured excellent hewn timber.

The use of Douglas fir for heavy construction will not reach such proportions as the use of Douglas fir for building purposes. Nevertheless, a more increased demand is to be expected. Heavy construction in cities now relies chiefly upon Douglas fir, because of its cheapness, lightness, and ease in working, even for those lengths and dimensions in which native hardwoods could be secured. Railroad construction is now being pushed further into treeless regions, where the light weight of Douglas fir again favors its use. The building of irrigation projects involving dam and canal construction is dependent chiefly upon Douglas fir.

The outlook is for a wider use of Douglas fir timbers.

The greater part of the timbers used are for temporary purposes. Hemlock would prove as suitable as Douglas fir.

Joinery

The joinery trade, which covers the manufacture from rough timber of all finished goods used for building purposes, such as sash, doors, architraves, stair and porch fittings, and other planing mill products is almost altogether in the hands of the merchants who import and carry stocks at the chief ports. The merchants at the ports manufacture much of this class of material used by the population in the interior.

The joinery trade is almost entirely dependent upon imported woods. The few Australian woods suitable for the trade have become so rare and valuable that they are beyond the reach of the ordinary purchaser.

In the early days of the Douglas fir import trade in Australia the wood was considered distinctly unsuitable for dressing or working up into any manufactured or finished form. Scandinavian deals, both

* From report to Department of Trade and Commerce, Ottawa.

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FOR EVERY CLASS OF TIMBER

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Install a KRAFT SODA MILL

CANADA has another big war opportunity: Great Britain needs more wood pulp. Install a small Soda Pulp Plant and Supply this need by converting your Slats, Tops, Bottoms and waste wood around the Saw Mill into pulp. We can dispose of any amount. Previous sources of supply in Sweden, etc., have recently been withdrawn and Canada now has a free field in Great Britain to market unlimited quantities of wood pulp. We can arrange contracts for long periods.
The cost of installing plant is small and you make a sure profit from waste material.

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LAHAVE PULP COMPANY.
MACLEOD PULP COMPANY, Liverpool, Canada.
NOVA SCOTIA WOOD PULP AND PAPER MILLS COMPANY.
RIORDAN PULP AND PAPER CO., Montreal. Easy Bleaching Canadian Sulphite Pulp.
ST. LAWRENCE SULPHITE PULP COMPANY.

red (pine) and white (spruce), were the standard raw material used in woodworking shops.

Even yet the use of Douglas fir is in the development stage. Its proportionate use in competition with Scandinavian deals varies in every city. It is least in Freemantle and Perth, where the competition of deals is keenest; it increases to the east in Adelaide and Melbourne, and reaches its highest proportion in Sydney, where Douglas fir constitutes 40 to 50 per cent. of the planing mill stock used.

In the same town the attitude of individual manufacture towards Douglas fir varies greatly.

The situtaion demands attention by Douglas fir manufacturers. If a few of the more adventurous and progressive manufacturers, formerly dependent on Scandinavian deals, of which 8—10,000,000 feet are imported annually for joinery, experiment with Douglas fir and find that they can select, chiefly from their merchantable yard stocks, a grade of Douglas fir which it is to their advantage to use in their business in proportions as high as 40 to 50 per cent., there is manifestly a possibility by salesmanlike methods, of hastening the conversion of the rank and file of manufacturers from Scandinavian deals to Douglas fir.

Woods Used for Shelving

Shelving, which was at one time wholly imported dressed, is now dressed in the local planing mills from rough lumber.

Western soft pine and redwood, which were used to a great extent, are now, on account of price, being displaced by Douglas fir and Western spruce:

The retail prices of the imported shelving used are given below:

Species, 1in. x 12 in.	Price Melbourne June, 1914. Per M.
White pine	$96.00
Western soft pine	90.00
Redwood	76.80
Douglas fir	55.20
Spruce	50.00

In Sydney native woods are used to a great extent, all of which cost $15 to $20 per thousand feet more than spruce or Douglas fir.

It would be to the advantage of Canadian export trade if British Columbia producers of Western soft pine would come to arrangements with Canadian exporters for the sending of parcel shipments of Western soft pine shelving and clear grades to Australia. As good prices can be obtained for export to Australia as can be secured in any other market, and Canada's ability to supply this material would assist Canadian exporters in making up mixed cargoes and supplying all the needs of Australian purchasers.

There is also a possibility of working out a grade, say, of fine grained yellow fir, of a high degree of suitability for joinery stock, for which a higher price could be secured.

The mouldings, architraves, skirtings, cornices, railings, facias, sash and frame materials used in building operations in Australia are practically all made in the country from imported lumber. Swedish deals were first used, and still are most common in Perth and Adelaide. Redwood now controls the market in Melbourne and Sydney. Douglas fir is being used in an amount less than 5 per cent. of the total in Melbourne and probably one-tenth of the total in Sydney since the war.

Redwood, however, is used for all classes of mouldings and Douglas fir for only a comparatively limited number of lines.

The possibilities for increasing the use of Douglas fir in mouldings are enormous. With an increase in the use of this wood in moulding will go an increase in doors and three-ply panels.

The chief obstacle in the way at present is the fact that, although Douglas fir moulding stock goes to planing mill $12 to $15 cheaper than redwood, both are sold in nearly all cases at exactly the same price. The Australian manufacturers see no advantage in letting the public have the benefit of the cheaper wood.

Co-operation between the producers of Douglas fir and varnish and stain distributors or manufacturers in Australia to demonstrate the best methods of treating Douglas fir would lead to an increased demand for interior trim from the public and from architects.

Advantages and Disadvantages of Redwood

Redwood is used annually to the extent of about 20,000,000 feet for joinery, and Western yellow pine to the extent of two or three million.

Redwood possesses the great advantage of being available in great widths, of being absolutely clear, and of being easy to work. It possesses the serious disadvantages of being so soft as to be easily damaged, presenting invariably a depressing, sombre finish, and of being more costly than Douglas fir.

In January, 1915, the price of 1-inch clear redwood was $68.40 per thousand feet, and the price of 1-inch clear Douglas fir, the price of which had already been shown to be unduly swelled by the exorbitant distribution profits, was $58.80.

Nevertheless, the use of redwood for joinery and interior trim exceeds the use of Douglas fir. Furthermore, though faced in their competition against Douglas fir with the handicap enumerated, the redwood exporters have found it advisable to maintain in Australia an expert demonstrator and student of lumber uses who will show builders and architects how redwood may be varnished and stained so as to imitate the effects of Douglas fir.

Although redwood is $15 to $17 higher in c.i.f. price than Douglas fir, and is about $10 higher in retail price for rough lumber, the cost of the two woods is the same to the buyer of interior trim, such as skirtings, panels, architraves. Again the distributor absorbs the profit, and with no advantage to the producer, the man making the sacrifice, deprives Douglas fir of its chief value in the Australian market, its cheapness.

A rapid increase in the use of Douglas fir could be induced by just such expert demonstration. Such prejudices as remain against its machining qualities could be overcome or reduced by demonstrating that knives set for redwood must be put in a different condition for Douglas fir. Those architects who are seeking relief from the dead brown effects common to redwood interiors could be shown how the many finishes possible to Douglas fir may be produced. Architects who examined the finished doors sent out by the British Columbia Forest Branch had previously refused to believe that such striking and attractive results were possible with the wood.

A great extension in the use of Douglas fir for joinery is possible if house builders are made aware of the beauties of the wood for interior finish. This increased trade may be secured quite as easily if the exporting price of the article is increased as if it remained at its present level and a grade of lumber for interior finish and joinery is developed. The best results are not possible so long as the Australian manufacturer depends largely on picking his factory stock for interior finish from merchantable shipments.

Wood-using Industries

The wood-using industries of Australia, aside from box factories and the planing mills discussed above, are not important. There is a probability that they will increase with the growth of the country and with the increasing tendency of Australia to manufacture her needs within her own borders.

The estimated consumption of timber in the wood-using industries of the continent (aside from box factories) is forty million feet. Only about seven million feet of this is Douglas fir.

The chief industries using rough Douglas fir are railway shops or car-building plants, wood pipe factories, and mattress factories.

Strange anomalies exist in the use of Douglas fir in the manufacture of railway passenger and freight cars. In Western Australia, a state possessing large quantities of hardwoods of species exported to England for car construction timber, Douglas fir is used for freight truck sides and decking. In the hot, dry climate of West Australia, equal to that of South Africa, where Douglass fir is refused in favor of the more expensive pitchpine, Douglas fir has given fifteen years' satisfactory service in the decking sides and ends of open coal and other trucks. Throughout the other states, where, on account of the greater scarcity and greater cost of hardwood timbers, the use of Douglas fir might be expected to be more general for freight trucks, it is used not at all, or in limited quantities.

Forest Fire Season Approaching

The Canadian Forestry Association have hit upon a new plan for bringing to the attention of the reading public the importance of guarding against forest fires. They are seeking to enlist the co-operation of retail and wholesale lumbermen in this work and are asking them to substitute for their regular advertisements in daily and weekly newspapers a piece of special forest protection copy. This assistance by the lumbermen will be of great value in the campaign against forest fires and will cost the lumbermen practically nothing The association is sending out to the lumbermen a copy of the proposed advertisement, which is brief and well designed. It draws attention to the fact that last year 265 Canadians lost their lives because of forest fires, and that about $6,000,000 worth of property was destroyed. Then it urges readers of all classes to take extreme precautions against forest fires. Settlers are asked to guard their clearing fires thoroughly. Hunters, fishermen, and prospectors are urged to put out their camp fires before leaving them, and then to throw a couple of extra pails of water or shovels of earth upon the dead embers. Camp fires should only be built in rocks or gravel or other safe spots and should be kept to small proportions. Lighted tobacco and matches should not be thrown away. A lighted match, cigarette or camp fire is often all that is needed to ignite the fuse that starts an enormous forest fire.

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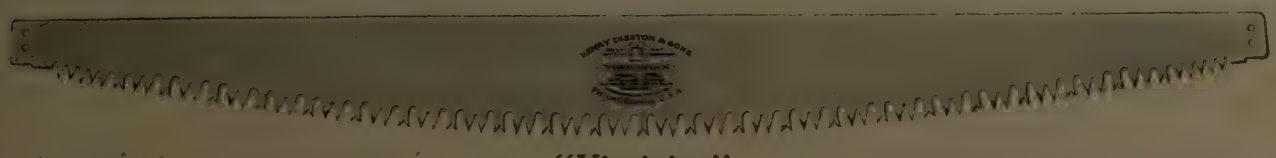

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The Expense of Doing Business—How It Affects Profits

By Morton T. Brewster

We have just closed out another year's business, and most of us are not at all satisfied with the results. We have worked hard, bought close, paid strict attention to business, and have added to the cost of the materials we have sold what looked like a sum that would net a fair profit at the end of the year. Our selling prices must be high, for our competitor frequently takes contracts away from us at lower prices than we quote, and yet he seems prosperous. Something is wrong, and we can't seem to figure out just what it is.

The Federal Trades Commission of the United States has just completed an investigation covering the past year of 260,000 concerns doing a manufacturing and mercantile business, with the result that they find that 200,000 concerns were just eking out an existence, 100,000 of them didn't earn a cent, and only a very small percentage made over $5,000. They also find that 10 per cent. know their actual costs, 40 per cent. estimate them, and that 50 per cent. have no method of determining them at all.

Business conditions have become more complex as competition has increased, so that it is no longer possible to conduct it in the same old haphazard way. The dealer must be satisfied with small or no profits at all, or adapt himself to present conditions to reap the benefit of the energy and investment that it is necessary to put into his business. When business was done on the old plan of adding to the invoice cost of materials a good, healthy sum to arrive at a selling price, the result at the end of the year was satisfactory, but motor truck deliveries were undreamt of, a good team of horses could be bought for less than $400, and oats to feed them was at 80c a bag.

Competition was not so keen and sales not so large nor as frequent, and the buyer depended largely on the individual from whom he bought for the fairness of the price he paid. Conditions have changed, yet many of us are still following the old method of adding to the cost of materials what looks like an adequate sum to arrive at a selling price.

We guess that it is costing more to handle goods, and we have guessed a larger sum than we ought to add. The trouble is that we are mighty poor guessers or we wouldn't be in the lumber business. We would be down in Wall Street and getting rich.

From reading the reports of other conventions, and from talking with dealers I find that there are a lot of them all over the country who have come to the conclusion that some other method of arriving at a selling price other than guessing must be arrived at to enable them to continue in the business.

The steadily increasing cost of goods, freight, labor, cartage, office and yard expenses, and taxes, and, in fact, everything that goes into the cost of doing business, from the pins with which you fasten your unpaid bills together all along the line to the big new motor truck, makes guessing at prices a dangerous business.

Each article sold must bear its proportion of all the expenses of a business, and its proportion must be added to the invoice cost to arrive at actual cost.

There are thousands of merchants who are selling their goods at prices that do not cover their actual cost. Some of their goods are being priced by the guess method, below cost; some at a price which nets a fair profit, and some few items at a large profit. The result at the end of the year depends upon the sale of the highly-priced goods, but the final result is disappointing.

Much ruinous competition incident to price cutting would be avoided if a general and careful study were made of all the elements that enter into the cost of doing business. Such a study would bring to light a lot of small costs which mount up in a year's business to an amazing sum, but which are not discernible by casual observation.

An item of cost that is not usually visible to the naked eye, and which is very much underestimated, is an over-stock, the cost of carrying it, and the depreciation that is incident to it.

The following is a list of items, with some others, that go to make up overhead expenses, a proportion of the total of which should be borne by each article sold: Salaries and wages, including your own; worthless accounts; general expenses, made up of postage, stationery, car fare, office supplies, heat, light, power, telephone, insurance, lawyers' fees, automobile repairs, and minor repairs of all kinds; interest, on borrowed money, on accounts past due and notes payable; discounts, for cash, for allowances made in the settlement of accounts; advertising in its many forms, including legitimate, charity, programs, etc.; cartage, feed or fuel, repairs and depreciation; freight, including small items not chargeable to merchandise account, and including car service; depreciation, of buildings, equipment, real estate, mortgages, etc.

To some of you this study of costs is not new, and you have no doubt worked out the problem, but the best interests of the dealers demand that it be solved by all

Many concerns won't analyze their accounts closely on account of the time it takes or the money it costs to get an accountant to do it for them, or on account of indifference.

Some workable plan that is fairly accurate has to be devised that we can all use without the aid of accountants, and without costing us much, in time or money—a method that is fool-proof and automatic.

This is simpler than you might suppose, as such a method can be worked out very easily if we keep books at all.

There are three ways of getting at overhead cost so as to apportion it among the articles sold. The first is complicated and requires a lot of statistics, and consists in figuring the actual cost to handle a particular article by taking the invoice cost and adding to it the exact proportions of each item contained in the overhead charge, as applied to that particular article.

The second method is by computing the percentage of overhead on invoice cost, which is easier to do than the first, but not as practical as the third, which is to compute the percentage of overhead on the selling price.

By dividing the total amount of your yearly expenses by the total sales you arrive at a percentage of the sales that it has cost to do business.

By personal enquiry I find that this percentage ranges from 18 to 24. With a large majority of dealers it is 20.

In percentage, then, 100 per cent. represents the selling price, which is made up of 20 per cent. overhead, and the percentage of profit, which most dealers place at 10 per cent. as being a fair profit, and the cost of the goods.

Out of each dollar's worth of goods that you sell 20c is overhead, 10c is profit, and 70c is the cost.

To find the selling price we simply divide the cost of the article by the percentage of cost—in this case 70 per cent.—to find the selling price.

For example, a thousand feet of lumber costs, say $28. We don't know what the selling price should be, but the gross profit is 30 per cent. Therefore, the cost, $28, divided by the percentage of cost, 70 per cent., gives $40, or 43 per cent. added to the cost. It takes 25 per cent. added to the cost to break even, and an extra 18 per cent. to get a 10 per cent. profit.

Now, a lot of you dealers are mentally shaking your heads at what appears to you as extravagant ideas as to profits, when represented by 43 per cent., and you are not going to be convinced right off that, by adding 43 per cent. to cost, nets you only 10 per cent. on the sale.

Know your costs. Form small local associations of dealers, and get around a table with some food on it. Get acquainted, and you will be surprised to find that your competitor is a fine fellow, and that he is after the same thing that you are—profits.

The trouble is that he hasn't had confidence in you, nor you in him, and that the only way to get business is by cutting prices.

When you both realize that it is absolutely necessary to get a certain percentage above invoice cost to make a profit, and you are both thoroughly satisfied what that percentage is, there will be no incentive left to cut prices, and you will both realize that you will have to get more money for your goods if you expect to stay in business and be a help to your community.

Wages Per Thousand Feet in Logging

A rather novel method of labor payment on a logging operation is reported from the camps of the Inman-Ponken Logging Company, near Kelso, Washington. This company no longer pays straight daily wages to the yarding or loading crews, but has adopted a system of payment on the thousand-foot output basis. The schedule of prices paid to the crew members per M. feet is as follows: Yarding crew—One hook-tender, 9 cents; one second rigging man, 6; one signal boy, 4; one road engineer, 6½; one head rigging man, 6½; one chaser (yarder), 6; one chaser (roader), 6; two swampers, 4½, and one yarding engineer, 7 cents. Loading crew—One engineer, 7 cents; one head loader, 7, and one second loader, 6 cents.

Where oil is used as fuel, a fireman is not furnished. The engineer must get up steam in the morning and make running repairs on his engine. Where a fireman is furnished, a reduction of one-half of 1 per cent. per thousand is made in the pay of engineers. All rollways are built at the expense of the company; all donkey engines are set, ready to put out lines; high leads are put up, and swing and road engines set before the yarding and loading crews begin. Yarding crews put out and change lines and move donkey engines from one end of a rollway to the other in their own time; put in all "fore and afters," and perform all other work necessary to begin operations after rollways are built and donkey engines are set. In case a donkey crew stops logging to change donkeys or to do any work to be done by them, and if one or more of the crew lays off for any cause, the company may put substitutes in their places and charge wages of said substitutes to the crew. In case no substitute is furnished, the man who quits forfeits one day's pay to the crew doing the work he was entitled to do that day. No logs shall be credited to any crew or any member of any crew until the logs are on cars in the switch yard and have been scaled. In case a

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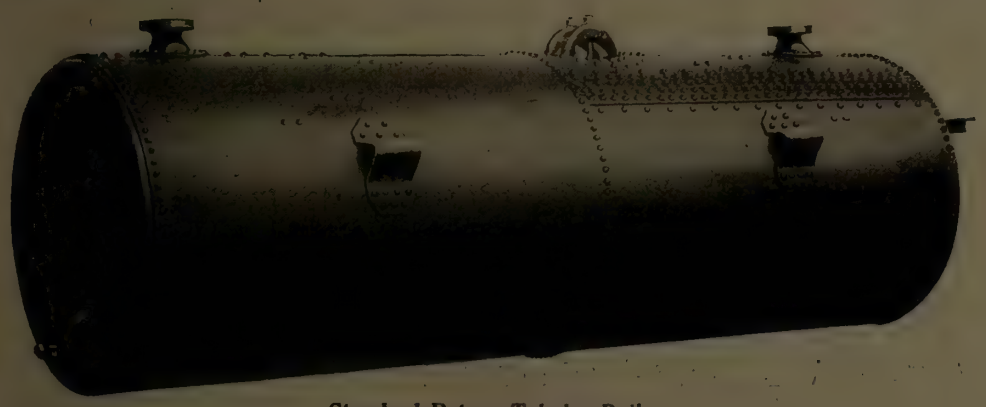

Standard Return Tubular Boiler

Enquiries addressed to our nearest sales office will receive prompt attention.

for prompt shipment subject to prior sale.

72 x 18	H. R. T. Boiler	150 lbs.	Ont.
60 x 16	" "	135 "	"
60 x 14	" "	125 "	"
2—60	H.P. Loco. Type	125 "	"
2—50	H.P. " "	140 "	"
2—50	H.P. " "	125 "	"
2—50	H.P. " "	120 "	Alta.
3—30	H.P. Vertical "	100 "	Ont.
6—25	H.P. " "	100 "	"
8—20	H.P. " "	100 "	"
4—15	H.P. " "	100 "	"
3—12	H.P. " "	100 "	"

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man quits, is discharged, or laid off, he forfeits all rights to all logs on the rollway. Members of donkey crews working until the camp shuts down or until the end of the season are entitled to pay for all logs on the rollway, even thought these logs are loaded after the donkey crew quits and are paid off. In case a donkey crew has an extra hard "show," the rate is raised on that "show." The company reserves the right to pay off all men working less than one month by the hour.—The Timberman.

What the Retail Dealer Should Be

The retail dealer's very existence depends upon the progressive, all-round development and prosperity of the community in which he is located. In many respects the retail dealer is a public servant, just as the railroad, gas, light, and telephone and other public utility corporations which serve their respective communities.

The progressive dealer should be a thorough analytic student, and he should avail himself of current trade literature to increase his knowledge of the business and what others of the industry have tried and discarded or adopted. He must be eternally alert as to competitors' methods.

To carry out the policies that have been adopted and keep his organization alive and progressive and to get the essential results from those in his employ he should by all means have executive ability.

Many are the failures resulting solely from poor finances. Not only must the dealer provide the necessary capital with which to sagely finance and operate his business, but it must be intelligently handled and conserved. In this connection two all-important matters suggest themselves to my mind—the subject of credits and that of collections. I do not propose to discuss the merits of strictly cash or credit business. I wish to emphasize, however, the importance of using the utmost discrimination in only giving where credit is fully justified. I cannot see possibly, for the life of me, what satisfaction a man can gain in selling a bill where the credit is shaky or doubtful. It seems a reasonable proposition to me to ask a man who wishes to purchase building material on time to at least give his personal note, with or without security, depending on the character of the borrower and the size of the loan, for loan it surely is. The open account for longer than thirty days' period in retail and sixty days in the wholesale seems to me should be abolished in every line of business. When it comes to matter of collections, these, as you all recognize, should be followed up promptly and relentlessly. I believe the statement should go immediately when the account is due, and if not paid promptly, then the matter should be followed up quickly to ascertain the reason, and prompt steps taken to collect, except where there is good and sufficient reason for delay. I believe that this method wins the respect of the customer for the dealer.

To at least a certain extent, the retailer should be a lawyer. He should understand sufficient business law to make contracts and protect himself in making contracts. He should understand notes and other legal documents required in his business. He should also thoroughly understand the lien law in his community. By all means the city or town ordinances should be closely watched in relation to building restrictions. The retail material dealer should be a building expert, an architect, and a carpenter. At least he should be able to advise intelligently on these questions. Other things being equal, the business will come to the dealer who has a knowledge of building affairs and construction, and a first-class knowledge of materials, estimates, plans, etc.

Now, I am going to get down to the real meat of the cocoanut, in discussing successively the next three subjects, which we all recognize as the essential fundamentals of the retail business, namely, purchases, sales, and advertising. Poor buying is a more sure road to failure than poor salesmanship. In pursuing a buying policy three important factors should be considered. First, responsibility—the ability of the seller to deliver the goods. Second, quality. Third, price. There is also another—fourth factor—service. The buyer is called upon to exercise the most keen, shrewd, careful judgment as to where to draw the line among sellers, for surely there is a proper dividing point where all factors mix in just the right proportion to give the dealer what he wants. As a dealer gains experience he will have eliminated from his sources of supply all those who fail to measure up to the standard in any one respect. For instance, when he must have quality he will not scrutinize the price so closely or the service. Or if in need of service he may be willing to sacrifice something of quality and also pay less attention to price; or if competition forces him to secure lower price, he will naturally expect the same degree of quality and service he usually gets from his regular sources of supply. The dealer will profit materially if he will cultivate the friendship of the individual salesmen on the road and also that of the mill with which he deals. This tends to build up a spirit of reciprocation and co-operation, mutual satisfaction, and business friendship, which redounds to the profit of both dealer and manufacturer. Competition based on quality, service, and salesmanship I consider wholesome and good for any business, but price competition in any line of industry is a menace.

A dealer who purchases or sells only what his trade calls for is a dead one. He must carry staples, of course, but he should also be on the alert for specials. From a manufacturer's standpoint this is especially desirable, for the reason that in most cases the dealer who operates along this line is assisting the manufacturers to move items which are not always readily saleable. One of the greatest opportunities for the dealer is to co-operate with the manufacturers in the placing of his orders. The more attractive he makes the business to the manufacturer the better the terms he will be accorded by the manufacturer in every respect, and he will be favored in price, service, and accommodations. Orders can be made still more attractive in many instances by giving permission wherever possible on each order to increase or decrease a certain item or items to suit the capacity of car which can be secured. This is of the utmost importance to both the producer and dealer in expediting shipments, especially in times like these, when cars are so scarce.

There is a right and wrong time to place orders, aside from the entirely price consideration. I refer to dull and rush periods. If the business were scattered throughout the year a more staple market would be obtained, and shipments would move with greater regularity and more promptly, and your investment in stock carried would remain approximately the same throughout the year.

Salesmanship in retail and building material, or any other product, is of the first importance. I believe that salesmanship can be studied and acquired and applied successfully just as a man can become educated along other lines.

The right hand of salesmanship is advertising, either personal solicitation and suggestion, newspaper or circular advertising, or trade extension and community development. To my mind no better opportunity exists to-day in the field of advertising than in the lumber business, either wholesale or retail. There is so much that can be said in favor of "good old wood—nature's product."

Just a word about the alleged modern retailer who lets his yard go to weeds, driveways are muddy and nasty, lumber is strewn over the yard, all sorts of odds and ends are scattered over the place, buildings are delapidated and need paint, offices are untidy, tobacco juice on floor and stove. I know that you think this is an extreme, but I tell you that I was surprised when I saw a good many just such yards on a trip last fall. Then take the dealer whose yards, sheds, and offices are always spick and span, clean and orderly. Which company would you prefer to deal with? Which one would you naturally go to first? I do not believe that price has any right to occupy a place in salesmanship except to a very limited extent. Salesmanship is destroyed just in proportion as the question of price figures into the bargain.

Wood is being displaced at an astonishing rate by substitutes. In 1915 substitutes took the place of twelve billion feet, or one-third the total production of lumber in the United States. The manufacturers must lead in redeeming this business, but we need the help of the retailers of the country.

The reputation, good name, and the success of a company is as much or more in the hands of the yard managers, individually and collectively, as under the control of the head office and the directors of the company. Did you ever stop to consider that in the town where the yard is located the yard manager's personality stands for the company's personality? The customer offended by the yard manager is offended at the company. On the other hand, the customer pleased and happy for the service received is a friend, and boots for the company. If the dealer possesses the qualities I have mentioned as necessary, I am confident that he is a modern retailer, and to exactly the extent to which he possesses these qualities to that extent will he be what he should be from the standpoint of the manufacturer.

Government's Wooden Ship Program

In the House of Commons recently Sir George Foster made a few remarks regarding the construction of wooden ships in Canada. Among other things he said: "As to wooden ships, an arrangement is now completed, and is being carried out, whereby any body or any company that can undertake in a bona fide way to build wooden ships and to deliver them within a certain time will get the opportunity of building the ships, and will be assured that the ship will pay for the cost of construction, with a reasonable profit." Subsequently Sir George Foster, in reply to a question from Hon. William Pugsley (St. John, N.B.), said: "Enquiries addressed to the Munitions Board will bring all the information. In the second place, if it should seem advisable to make an announcement to the public in a fuller or perhaps a more speedy way, the Government will confer with the Munitions Board as to such an announcement."

The forestry unit raised by Major Marsh, Vancouver, has been turned into a railway construction corps, and will be increased to 225 men.

FOR SALE

Dry Birch

Registered

N

Trade Mark

5	Cars	8/4	1s and 2s
2	"	10/4	"
5	"	8/4	No. 1 Common
1	Car	10/4	" "
3	Cars	12/4	" "
3	"	12/4	No. 2 Common
2	"	12/4	Sound Boxed Hearts
2	"	16/4	" " "
5	"	4/4	No. 1 Common and Better
2	"	5/4	" " "
10	"	4/4	No. 2 and 3 Common
2	"	5/4	" "
2	"	8/4	" "
5	"	12/4	" "

Dry Maple

2	Cars	6/4	No. 1 Common and Better
4	"	8/4	" " "
1	Car	10/4	" " "
1	"	12/4	" " "
2	Cars	12/4	Sound Boxed Hearts
2	"	16/4	" "
5	"	8/4	No. 2 and No. 3 Common

Spruce

1	Car	2 x 4"	Dry
2	Cars	3 x 4" and up	Dry
2	"	2 x 6	Shipping Dry
1	Car	2 x 8"	"
2	Cars	2 x 10	"

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WHOLESALE LUMBER
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Wholesale Dealers in Rough and Dressed Lumber, Lath and Shingles
Offices—McGill Building, MONTREAL, Quebec

EDGINGS

Ontario

The planing mill belonging to Phippen Bros., 746 Pape Avenue, Toronto, Ont., was recently damaged by fire.

J. & J. Kerr Company, Petrolia, Ont., have just received from the government an order for 15,000 shell boxes and will be in the market for material.

The plant of the Canadian Car and Foundry Company at Fort William, Ont., which has been idle for some time is being re-opened, and is commencing operations upon an order for 5,000 cars.

The Welland Ship Building Company, Limited, St. Catharines, Ont., has been incorporated with capital stock of $200,000, to carry on business as shipbuilders. F. H. Keefer, Thorold, Ont., is interested in the new concern.

The Montreal River Logging Company, Limited, has been incorporated with head office at Sudbury, Ont., and capital stock of $200,000, to carry on a general logging and lumbering business. The provisional directors of the company are F. Woods, G. J. Valin and A. J. Manley, of Sudbury, Ont.

Ferguson and McFadden, formerly of Tomiko, Ont., have disposed of their lumber and standing timber at that point and have removed their office to Renfrew, Ont. In future all their business will be transacted from Renfrew. The firm have carried on a successful logging operation in the townships of Stewart, Lockhart and Osborne for thirteen years.

Midland Wood Products Ltd., has been incorporated with head office at Midland, Ont., and capital stock of $200,000, to carry on business as timber and lumber manufacturers and to own and deal in timber limits, operate sawmills, etc. Among those interested in the new company are James Playfair, D. S. Pratt, D. J. Turner, N. L. Playfair, and M. J. Bray, all of Midland.

Eastern Canada

La Cie Generale de Pulpe Ltee., Montreal, P.Q., have been registered.

The lumber mill belonging to J. J. McFadden, East Templeton, P.Q., was destroyed by fire. The loss was covered by insurance.

The Port aux Quilles Lumber Company have obtained a charter with head office at Montreal, P.Q., and capital stock of $100,000.

The Canada Newfoundland Lumber Company, Limited, has been incorporated with head office at Montreal, P.Q., and capital stock of $300,000.

The Delisle Lumber Company, Limited, has been incorporated with a capital of $20,000, for the purpose of carrying on a sash and door business in Montreal. Messrs. J. Odonat Delisle, F. Demers, J. Herve Delisle, and others, are interested.

Acting for a third party, Messrs. R. W. Barclay, of Montreal, and V. N. Theriault, of Nicolet, have purchased the pulp mills of the D'Alma Peribonka Pulp Company, at St. Joseph d'Alma, Lake St. John, P.Q. The plant of the company will be improved at an early date.

The Nominique Pulp and Lumber Company, Limited, have been granted a federal charter, with headquarters in Montreal and capital stock of $300,000. The company is empowered to take over the assets and property of Eugene Patenaude and to manufacture and deal in lumber, timber and logs. Those interested are E. Patenaude, Outremont, P.Q.; H. G. Boyle, Westmount, P.Q.; L. Sessewein, J. G. Shearer and P. J. Hubert, Montreal.

Letters patent have been granted by the Government of Quebec incorporating the Southern St. Lawrence Forest Protective Association, Limited, with a capital of $20,000 in $2 shares. Those interested are Messrs. W. Gerard Power, of Saint Pacome; Robt. L. Montgomery, of New Richmond; Angus McLean, of Bathurst, N.B.; H. J. Lyons, of Matane; and Simmons Brown, of Quebec. The object is stated to be the installation and operation of an efficient system of protection from fire, including all the timber lands in the counties of Belechasse, Montmagny, l'Islet, Kamouraska, Temiscouata, Rimouski, Matane, Bonaventure and Gaspe. Power is also granted to promote legislation for forest conservation; to co-operate with the Government for the protection of forests; to operate a telephone system in connection with lumbering operations; to build roads and trails; to build lookout towers; and to bring closer together corporations, etc., owning or leasing timber lands in the counties referred to, in order to co-operate in the protection of forests from fire. The head office will be in Quebec city.

Western Canada

The Home Lumber Yards, Minto, Man., were recently destroyed by fire.

The Dutton-Wall Lumber Company, Limited, have sold out their branch at Nokomis, Sask.

The Pacific Shipbuilding Company, Limited, have obtained a charter with head office at Vancouver, B.C.

August Olson, lumberman, Bradwell, Sask., has sold his lumber business to the North Canada Lumber Company, Limited.

The Bruce Logging & Flume Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of $10,000, to carry on

business as lumber and timber merchants, shingle mill and sawmill proprietors, etc.

The Fleming Lumber Company, Limited, has been incorporated with head office at Fleming, Sask., and capital stock of $20,000.

A charter has been granted to the Giscome Lumber Company, Limited, Giscome, B.C., with a share capital of $1,000,000. The company are given power to cut logs and manufacture lumber and to erect and operate pulp and paper mills.

The Kamloops Sawmills, Limited, has been incorporated with head office at Kamloops, B.C., and capital stock of $50,000, with power to erect pulp and paper mills. J. C. Shields and J. L. Broadfoot, of Vancouver, are the principal promoters.

A. P. Allison & Company, Limited, has been incorporated with head office at Green Point Rapids, B.C., and capital stock of $100,000, to carry on business as timber merchants, sawmill, shingle mill and pulp mill proprietors, loggers and lumbermen.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 21st day of June, 1917, for the purchase of License X952, to cut 1,995,000 feet of fir, cedar, pine, larch and hemlock on an area adjoining T. L. 32270, Obstruction Island, Clayoquot District. Three years will be allowed for the removal of the timber.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 20th day of June, 1917, for the purchase of License X895, to cut 2,592,000 feet of spruce, cedar, balsam and hemlock on an area situated on the east shore of Mathieson Channel, Range 3, Coast District. Three years will be allowed for the removal of the timber.

The Whelan Pulp and Paper Mills, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of $10,102,500. The objects of the company are to take over as going concerns the British Columbia Sulphite Fibre Company, Limited, and the Empire Pulp and Paper Mills, Limited, and to carry on business as lumber manufacturers and merchants and to deal in pulp, paper, timber and lumber.

The Acme Shingle Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of $20,000, to acquire from Pelton Keith Mackedie and Charles Russell Leas, carrying on business under the name of the Star Lumber Company, their right, title and interest in a shingle mill at Cassidy Siding on Vancouver Island, B.C., aand to acquire from Donald Burgess his right, title and interest in an interest to purchase shingle bolts. The company will erect and operate shingle mills, sawmills, planing mills, wood pulp mills and wood factories of all kinds and will carry on business as foresters, loggers, timber merchants, etc.

B. C. Log Situation Serious

One of the largest lumber manufacturing firms in British Columbia, in a recent communication to an eastern Canada firm, reports that the logging situation in British Columbia at present is most unsatisfactory, not to say critical. While they have logs coming in all the time, most of their supply is still up the coast and the weather has been very much against getting the logs down, on account of the hazard of losing them in high seas. In connection with all their business now, this firm are stamping upon their correspondence the following advice:—"On account of the abnormal conditions existing as to markets and car supply this quotation is made or this order is accepted, with the understanding that any possible advance in freight rates is for the customer's account."

Another large lumber manufacturing firm in British Columbia, in a letter to its eastern representative, says:—"The consumers of selected timbers in Eastern Canada must be prepared for very high prices this summer; on account of the labor shortage, scarcity of wire rope and general adverse manufacturing conditions. Preparations have not been made early enough this season by most producers of logs in British Columbia to get out the number of logs required for shipbuilding timbers. In fact, very few loggers have any tracts of timber that will serve such a purpose. Some of them are sold forward to such an extent that they are not able to supply general requirements. The great demand for timbers for shipbuilding comes at a time when timbers cannot be got and the result is that the price has gone up very rapidly. There is every indication that timbers of selected quality are going to be high in price and difficult to secure this summer."

In connection with the questionnaires being sent out, on behalf of the Advisory Council for Scientific and Industrial Research in Canada, by the Canadian Society of Civil Engineers, Canadian Mining Institute, Canadian Manufacturers' Association, Society of Chemical Industry, and a joint committee, a list of manufacturers has been compiled. In the Province of Quebec, excluding Montreal and Quebec, the list contains the names of 1,007 places and 2,846 industries. One interesting feature is that of the total industries 1,547 are sawmills, and that there are 436 places where the only industry consists of sawmills. These figures illustrate the great importance of the lumbering industry in the province.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
1 x 6 in. 10/16 ft. merchantable	29 M
1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable.	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

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East Toronto June 17/10

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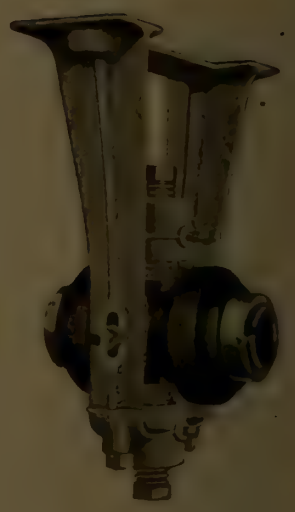
Yours very truly
L. A. DeLaplante Limited
per W. Gordon Supt.



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have been installed in over 3000 factories of all classes during the past fifteen years, and the above letter is one of many of a similar import, bearing testimony to the efficiency, long life, and cleanliness of the bearing. Some of these have been compiled in a booklet, "Results", which we will be pleased to send on request.

Chapman Double Ball Bearing Co., Ltd.

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Transmission Ball Bearing Co., Inc., 1050 Military Road, Buffalo, N. Y.

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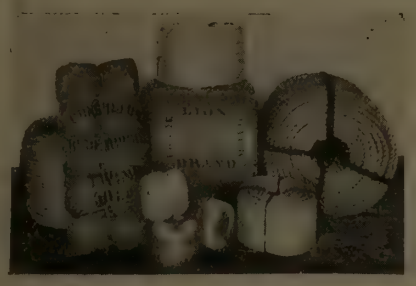

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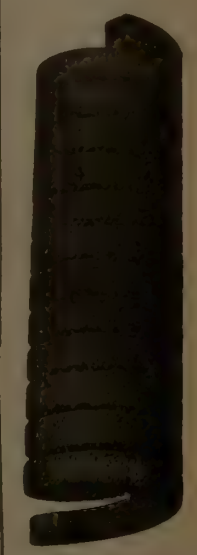

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Finest Chisel Tooth and Solid Saws Made

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Think this over "Please." Now is the time to order for next Spring's delivery.

Write for prices, terms and testimonials

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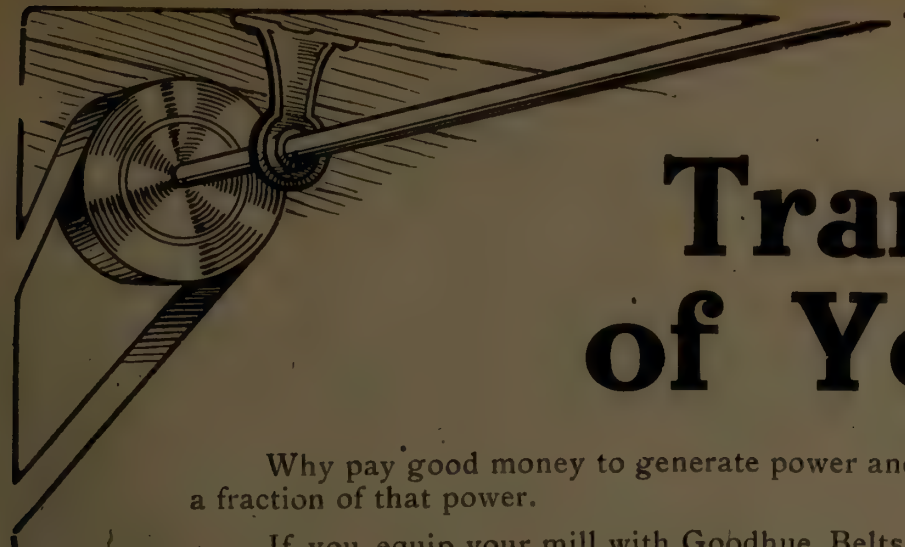

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If you equip your mill with Goodhue Belts you can transmit 100% of the power generated.

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Car Lots

White Pine:		
1 inch No. 1 cuts and better.	$50 00	52 00
1½ inch No. 1 cuts and better.	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	35 00	36 00
1 x 6 common and dressing ...	37 00	39 00
1 x 8 common and dressing ...	38 00	40 00
1 x 10 common and dressing ..	40 00	42 00
1 x 12 common and dressing ..	43 00	45 00
1 x 10 and 12 mill cull stocks	30 00	31 00
1-in. mill cull sidings	27 00	28 00
5/4 and 6/4 x 4 m.r., m.c. out.	35 00	36 00
5/4 and 6/4 x 5 m.r., m.c. out.	35 00	36 00
5/4 and 6/4 x 6 m.r., m.c. out	35 00	36 00
5/4 and 6/4 x 8 m.r., m.c. out.	36 00	37 00
5/4 and 6/4 x 10 m.r., m.c. out	42 00	43 00
5/4 and 6/4 x 12 m.r., m.c. out	44 00	45 00
2 x 10 common	36 00	38 00
2 and 3 x 12 common	39 00	40 00
1 x 8 box and common		33 00
1 x 10 inch box and common.		35 00
1 x 12 inch box and common.		35 00
1-in. mill run sidings		35 00
1-in. mill run shorts		28 00
1-in. mill run Norway		30 00
2-in. mill run Norway	33 00	35 00
Norway, c. and cf. 1-in.	38 00	40 00
Norway, c. and cf. 1½-in. ...	39 00	41 00
Norway, c. and cf. 2-in.	39 00	41 00
Spruce mill run 1-in. and 2-in.	31 00	32 00
Spruce mill culls	26 00	27 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		23 00
1 x 6-in. x 9 to 16 ft.		27 00
1 x 8-in. x 9 to 16 ft.		28 00
1 x 10 and 12 in. x 9 to 16 ft.		29 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		26 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		27 00
2 x 4 to 12 in., 12 and 14 ft...		27 00
2 x 4 to 12-in., 18 ft.		30 00
2 x 4 to 12-in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		22 00
Clear in. B.C. cedar, kiln dried	50 00	55 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		38 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		39 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		39 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20; up to 32 ft.		40 00
10x20, 18x20, up to 32 ft.		40 50
6x18, 8x18, up to 32 ft.		40 50
6x20, 8x20, up to 32 ft.		40
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain...		41 50
Fir flooring, 1 x 4, edge grain..		44 50
Fir flooring, 1 x 4, flat grain..		37 50
No. 1 and 2, 1-in. clear Fir rough		48 00
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		54 00
No. 1 and 2, 2-in. clear Fir rough		50 00
1½-in. No. 1, 4-ft. pine lath.		6 00
1½-in. No. 2 4-ft. lath		5 70
1½-in. 32-in. pine		2 75
1½-in. No. 1 4-ft. hemlock lath.		4 50
1½-in. mill run hemlock lath.		4 25
XX B. C. cedar shingles		3 35
XXX 6 butts to 2-in.		4 45
XXXXX		4 95

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	$65 00	71 00
Ash, white, No. 1 common....		45 00
Ash, brown, 1sts and 2nds, 4/4		57 00
Ash, brown, com. and bet. ...		43 00
Ash, brown, 1sts and 2nds, 6/4 and 8/4		65 00
Birch, 1st and 2nds, 4/4		50 00
Birch, No. 1 com. and bet., 4/4		40 00
Birch, 1st and 2nds, 6/4 and 8/4		55 00
Birch, 1st & 2nds, 10/4 and 12/4		65 00
Birch, 1st and 2nds, 16/4		70 00
Basswood, 1sts and 2nds, 4/4 ...		50 00
Basswood, No. 1 com. and bet., 4/4		43 00
Basswood, No. 2 and 3, common		22 50
Basswood, 6/4 and 8/4, 1sts and 2nds		55 00
Basswood, 6/4 and 8/4, com. and bet.		42 00
Basswood, 4/4, No. 2 com. and bet.		37 00
Soft elm, 1sts and 2nds, 4/4 ...		45 00
Soft Elm, No. 1 com. and bet., 4/4		38 00
Soft Elm, No. 2 and 3 common.		19 00
Soft Elm, 6/4 and 8/4, 1 and 2		50 00
Rock Elm, 1sts and 2nds, 6/4 & 8/4		55 00
Rock Elm, No. 2 com. and bet., 6/4 and 8/4		40 00
Soft Maple, 1sts and 2nds, 4/4..		40 00
Soft Maple, com. and bet., 4/4.		33 00
Soft Maple, 6/4 & 8/4, 1sts and 2nds	45 00	50 00
Hard Maple, 1sts and 2nds, 4/4		43 00
Hard Maple, com. and bet., 4/4		37 00
Hard Maple, 12/4 and 16/4, 1sts and 2nds	65 00	70 00
Red Oak, plain, 1sts and 2nds, 4/4		62 00
Red Oak, plain, No. 1 com., 4/4		43 00
Red Oak, plain, No. 2 com., 4/4		32 00
Red Oak, plain, 1sts and 2nds, 6/4 and 8/4		68 00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	77 00	85 00
White Oak, plain, 1sts and 2nds, 4/4		62 00
White Oak, plain, No. 1 com, 4/4		43 00
White Oak, plain, No. 2 com., 4/4		32 00
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	62 00	65 00
Red and White Oak, plain, No. 1 com., 5/4 and 6/4		45 00
Red and White Oak, plain, No. 2 com., 5/4 and 6/4		35 00
Red and White Oak, plain, 1sts and 2nds, 8/4		70 00
Red and White Oak, plain, No. 1 com., 8/4		50 00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00	85 00
White Oak, ¼ cut, 1sts and 2nds, 4/4		89 00
White Oak, ½ cut, 5/4 and 6/4, 1sts and 2nds		92 00
White Oak, ¼ cut, No. 1 com.		57 00
Hickory, 1sts and 2nds, 4/4 ...		62 00
Hickory, 6/4 and 8/4, 1sts and 2nds		70 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$55 00	57 00
1¼-in. and 1½-in. x 8-in. & up	64 00	67 00
2-in. x 7-in. and up	65 00	68 00
No. 2 cuts 2 x 8-in. and up...	42 00	45 00
Pine good strips:		
1-in.	42 00	44 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	53 00	56 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	45 00
1-in. x 4-in. to 6-in.	32 00	34 00
1¼-in. and 1½-in.	53 00	55 00
2-in.	54 00	56 00
7-in. to 9 in. A sidings	27 00	30 00
Pine, No. 1 dressing sidings ...	35 00	38 00
Pine, No. 1 dressing strips	30 00	33 00
Pine, No. 1 dressing shorts....	28 00	30 00
Pine, 1-in. x 4-in. s.c. strips.....		30 00
Pine, 1-in. x 5-in. s.c. strips.....		31 00
Pine, 1 in. x 6 in. s.c. strips ...		33 00
Pine, 1-in. x 7-in. s.c. strips.....		30 00
Pine, 1 x 8 in., s.c., 12 ft. to 16 ft.		34 00
Pine, 1-in. x 10-in. M. R.		36 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	32 00
Pine, s.c. strips 1-in.		27 00
1¼, 1½ and 2-in.	31 00	32 00
Pine, s.c. shorts, 1 x 4 to 6 in..	24 00	26 00
Pine, s.c. and bet., shorts 1 x 5		25 00
Pine, s.c. and bet., shorts, 1 x 6		27 00
Pine, s.c. shorts, 6'-11', 1"x10"		30 00
Pine box boards:		
1"x4" and up, 6'-11'		24 00
1"x3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	25 00	27 00
Pine, mill culls stock, 1 x 12 ..	28 00	30 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		22 00
O. culls r & w p	15 00	16 00
Red Pine, log run:		
mill culls out, 1-in.	26 00	28 00
mill culls out, 1¼-in.	26 00	28 00
mill culls out, 1½-in.	26 00	28 00
mill culls out, 2-in.	28 00	30 00
mill culls, white pine, 1"x 7" and up	21 00	26 00
Mill run Spruce:		
1"x4" and up, 6'-11'	18 00	23 00
1"x4" and up, 12'-16'	26 00	27 00
1"x 9"-10" and up, 12'-16'..	27 00	33 00
1½"x 7" 8-9" and up, 12'-16'	27 00	33 00
1½"x 10" and up, 12'-16' ...	27 00	34 00
1½" & 2"x12" and up, 12'-16'		36 00
Spruce, 1-in. clear (fine dressing and B)		37 00
Hemlock, 1-in. cull	15 00	18 00
Hemlock, 1-in. log run	21 00	22 00
Hemlock, 2x4, 6, 8, 10, 12/16'..	23 00	26 00
Tamarac	19 00	20 00
Basswood, log run, dead culls out	22 00	24 00
Basswood, log run, mill culls out	23 00	26 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$74 00	
1 in., 8 in. and up wide	83 00	
1¼ and 1½ in. and up wide	86 00	
2 in. and up wide	88 00	
Cuts and Better		
4/4 x 8 and up No. 1 and better	58 00	
6/4 x 8 and up No. 1 and better	70 00	
8/4 x 8 and up No. 1 and better	72 00	
6/4 x 6 and up No. 2 and better	61 00	
8/4 x 6 and up No. 2 and better	63 00	
6/4 x 6 and up No. 3 and better	55 00	
8/4 x 6 and up No. 3 and better	50 00	
No. 1 Cuts		
1 in., 8 in. and up wide	50 00	
1¼ in., 8 in. and up wide	59 00	
1½ in., 8 in. and up wide	61 00	
2 in., 8 in. and up wide	64 00	
2½ and 3, 8 in. and up wide	84 00	
4 in., 8 in. and up wide	90 00	
No. 2 Cuts		
1 in., 6 in. and up wide	36 00	
1¼ in., 6 in. and up wide	47 00	
1½ in., 6 in. and up wide	48 00	
2 in., 6 in. and up wide	49 00	
2½, 3 and 4 in., 6-in. and up wide ..	68 00	
No. 3 Cuts		
1 in., 6-in. and up wide	30 00	
1¼ and 1½ in., 6-in. and up wide	35 00	
2 in., 6-in. and up wide	30 00	
2½, 3 and 4-in., 6-in. and up wide	45 00	48 00
Common and Dressing Mill Run		
1-in. x 4 in.		32 00
1-in. x 5-in.		32 00
1-in. x 6-in.		34 00
1-in. x 8-in.		34 00
1-in. x 10-in.		36 00
1-in. x 12-in.		38 00
1-in. x 13-in. and up		38 00
1¼, 1½ and 2 in.		40 00
No. 1 Barn		
1 inch	38 00	48 00
1¼, 1½ and 2-in.	45 00	51 00
2½ and 3-in.		55 00
4 inch		58 00
No. 2 Barn		
1 inch	35 00	42 00
1¼, 1½ and 2-in.	38 00	44 00
2½ and 3-in.		46 00
No. 3 Barn		
1 inch	32 00	36 00
No. 1, 1, 1¼, 1½, 2-in.		34 00
Box		
No. 1, 1, 1¼, 1½, 2-in.	29 00	31 00
No. 2, 1¼, 1½, 2-in.		28 00
Mill Culls		
Mill run culls, 1-in.		27 00
1, 1¼, 1½ and 2 in.		28 00
No. 2	24 00	26 00
Lath		
No. 1, 32-in. pine		2 00
No. 2, 48-in. pine		5 00
No. 1, 48-in. pine		5 50
No. 3, 48-in. pine		4 50
Hemlock Lath, 48-in.		4 50

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension. — S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14 & 16 ft.
2 x 4, 6, 8 ..	16 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH.

Mountain Stock.

Dimension.	
2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 4 6 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12, 8 to 16 ft.	28 50
2 x 10 and 2 x 12, 18, 20, 22 ft.	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50
No. 1 Common Boards	
4 inch	23 00
6 inch	25 50
8, 10, 12 inch	27 50
Mixed widths	26 50
Flooring.	
4 or 6 inch No. 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	26 00
Shiplap—Finished.	
6 inch	24 00
8, 10 and 12 inch	25 00
Siding.	
6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00
Lath.	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed) ...	4 50

PINE ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 10
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8 16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 6 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 21 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft. ...	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft ...	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft. ..	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft. ...	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft ..	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft. ..	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft. ..	30 50

FLOORING

Nos. 1 and 2, 1 x 3 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in. E. G.	30 00
Nos. 1 and 2, 1 x 6 in., F. G.	35 00
No. 3, 1 x 4 in.	28 00
No. 3, 1 x 6 in.	33 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ⅜ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

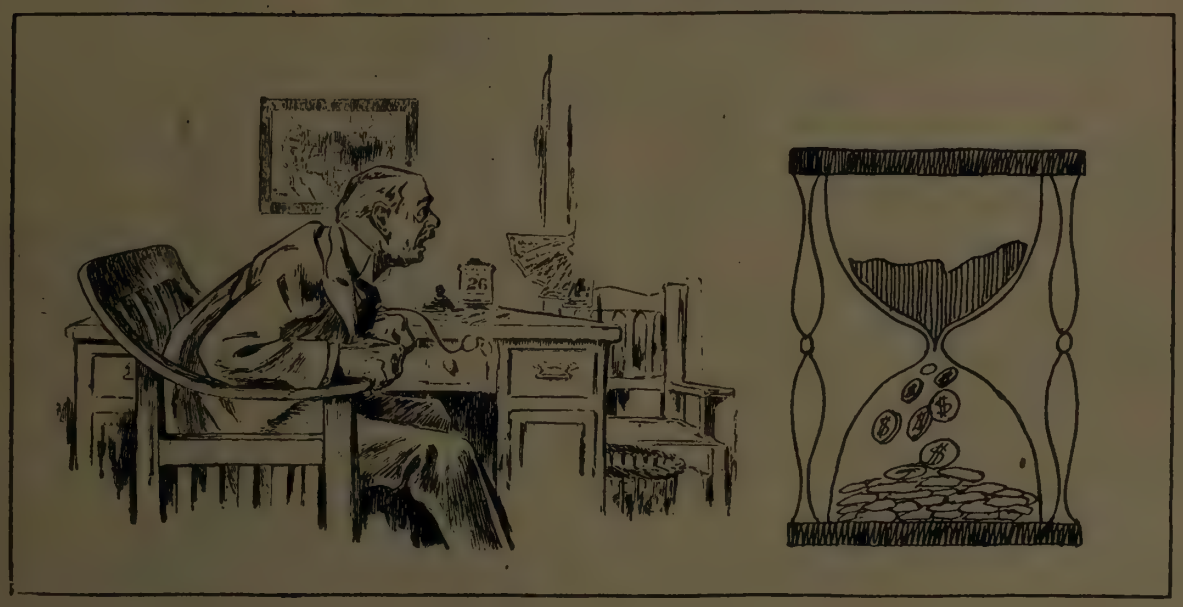
White Pine

Wholesale Selling Price

Uppers, 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 58)

If You Could "See" Time Being Wasted



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No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	36 - 38	23 - 25	14 - 16
5/4 to 8/4	42 - 45	28 - 30	16 - 18
10/4 to 16/4	48 - 52	33 - 35	20 - 22

RED BIRCH

4/4	50 - 52	30 - 21	18 - 20
5/4 to 8/4	54 - 56	32 - 34	18 - 20

SAP BIRCH

4/4	45 - 47	30 - 32	18 - 20
5/4 and up	50 - 52	32 - 34	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	10 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	38 - 40	28 - 30	18 - 20
Thicker	40 - 42	30 - 32	20 - 22

PLAIN OAK

4/4	52 - 54	33 - 35	19 - 21
5/4 to 8/4	51 - 53	29 - 31	17 - 19

ASH, WHITE AND BROWN

4/4	46 48	26 28	17 19
5/4 to 8/4	56 58	31 33	18 20
10/4 and up	69 - 81	43 - 45	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in.	112 00
Selects, 1 to 2 in.	104 00
Fine common, 1 in.	74 00
Fine common, 1¼ to 2 in.	81 00 83 00
No. 1 Cuts, 1 in.	59 00
No. 1 Cuts, 1¼ to 2 in.	69 00 74 00
No 2 Cuts, 1 in.	42 00
No. 2 Cuts, 1¼ to 2 in.	54 00 61 00
Barn Boards, No. 1, 1 x 12	56 00
No. 1, 1 x 10	49 00
No. 1, 1 x 8	46 00
No. 2, 1 x 12	49 00
No. 2, 1 x 10	46 00
No. 2, 1 x 8	43 00
No. 3, 1 x 12	41 00
No. 3, 1 x 10	39 00
No. 3, 1 x 8	38 00
Canadian spruce boards	27 00 40 00
Spruce, 12 in. dimension	39 00
Spruce, 10 in. dimension	38 00
Spruce, 9 in.	37 00
Spruce, 8 in. under dimen.	36 00
10 and 12 in. random lengths, 8 ft. and up	36 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7	31 00
3 x 4 and 4 x 4 in.	32 00
2 x 8 in.	34 00
All other random lengths, 7-in. and under, 8 ft. and up	30 00 31 00
5-inch and up merchantable boards, 8 ft. and up, p 1s..	28 00 30 00
1 x 2	27 50
1 x 3	26 00
1½-in. spruce laths	5 50
1½ in. spruce laths	4 75

New Brunswick Cedar Shingles

Extras		5 00
Clears		4 65
Second Clears		2 80
Clear whites		3 40
Extra 1s (Clear whites in)	1 75	2 25
Extra 1s (Clear whites out)	1 05	1 90
Red Cedar Extras, 16 in. 5 butts to 2-in.		5 25
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		5 40
Red Cedar Perfections, 5 butts to 2½		6 50
Washington, 16-in. 5 butts to 2-in. extra red cedar		4 75

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H. W. BLANCHARD, Treas.

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Pine
Shingles
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Lath

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We also desire more connections with manufacturers of British Columbia red cedar shingles and cedar siding.

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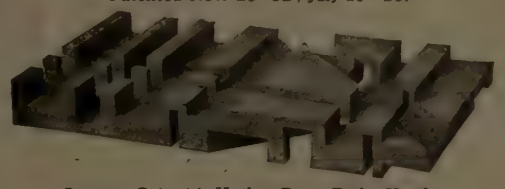

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Southern Lumber Company
Stout Lumber Company
Terry & Gordon

KNIVES
Disston & Sons, Henry
Peter Hay Knife Company
Simonds Canada Saw Company
Smith Company, R. H.
Waterous Engine Works Company

LATH
Arkansas Land & Lumber Company
Arkansas Lumber Company
Arkansas Soft Pine Bureau
Austin & Nicholsin
Chicago Lumber & Coal Co.
Cotton Belt Lumber Company
Crossett Lumber Company
Eagle Lumber Company
Edgar Lumber Company
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Fraser-Bryson Lumber Company
Freeman-Smith Lumber Company
Fordyce Lumber Company
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Graves, Bigwood & Company
Harris Tie & Timber Company
Long Lumber Company
McGibbon Lumber Company
McLennan Lumber Company
New Ontario Colonization Company
River Ouelle Pulp & Paper Co.
Southern Lumber Company
Stone, Fred J.
Stout Lumber Company
Spencer, C. A.
Terry & Gordon
Union Lumber Company
Victoria Harbor Lumber Company
Wisconsin & Arkansas Lumber Co.

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McLennan Foundry & Machine Works, Limited.
Smith Foundry Company.

LATH TWINE
Consumers Cordage Company

LOCOMOTIVES
Climax Manufacturing Company
Jeffrey Manufacturing Company
Montreal Locomotive Works

LOCOMOTIVE CRANES
Canadian Link-Belt Company, Ltd.

LOGGING CHAINS
McKay Company, James

LOGGING ENGINES
Dunbar Engine & Foundry Co.
Jenckes Machine Company

(Continued on page 62)

GRATON & KNIGHT

Standardized Series LEATHER BELTING

Tanned by Us for Belting Use

What Is Standardized Belting?

Standardization of Graton & Knight Belts is not new. They have been standardized for many years.

They have been standardized on the basis of the work to be done—not made to meet theoretical specifications, laid out on paper for belt-makers to follow blindly.

During 66 years of actual usage, these belts have survived and evolved into recognized, practical standards. And because they have evolved on the job, they have gradually become fitted to each kind of belting job.

There is a brand for every need—a complete and adequate Series of Standardized Belts. Each Brand is uniform as to tannage, strength, weight, performance—and each roll of each Brand.

Graton & Knight are the largest belt makers in the world. They have been making belts for three generations—such vast resources, and such long experience, enable them to maintain the uniform quality of their belts—to standardize belting.

Standardize the buying of your belting—and learn why it is so easy, so practical, so safe to merely specify "Graton & Knight—or equal."

Write for a description of Graton & Knight Standardized Brands and a copy of their book on belting. Or let them send a representative who will tell you about Belting Standards.

The Graton & Knight Mfg. Co.

Oak Leather Tanners, Makers of Leather Belting, Lace Leather, Leather Packings and Sundries

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Donogh & Company, John
Eagle Lumber Company
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Fraser Limited
Gillies Bros. Limited.
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Graves, Bigwood Company
Harris Tie & Timber Company
Hart & McDonagh
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Long Lumber Company
Mason, Gordon & Company
McLennan Lumber Company
Montreal Lumber Company
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Summers, James R.
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Garlock Packing Company
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Bowater & Sons, W. V.
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Terry & Gordon.

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Hamilton Company, William
Jeffrey Manufacturing Company
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Can. Boomer & Boschert Press Co.
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Hamilton Company, William
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Machinery Company of America
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Fraser Limited
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Harris Tie & Timber Company
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Long Lumber Company
McGibbon Lumber Company
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Terry & Gordon.
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Vancouver Lumber Company
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(Continued on page 61)

The Babbitt Metal that's at the Front in Efficiency and Economy

HARRIS HEAVY PRESSURE

"The Babbitt Metal Without a Fault," is guaranteed to give EXCELLENT SERVICE. It will not crack or squeeze out. It will run cool at any speed. It is copper coated and copper hardened. It is best for all general machinery bearings. Order a box from our nearest factory.

It is Made in Canada. What We Make We Guarantee.

We Manufacture All Grades of Babbitt Metals.

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Don't Take a Chance!

Be sure of the ***maximum*** profit from your Waste Wood. Instal Wood Distilling and other Chemical Equipment with a Reputation and a guarantee behind it.

We have been making special process chemical plants for over 75 years, installed throughout the world. Wood Distilling Plants in operation which we built during the past few years distil more than 400 tons per day.

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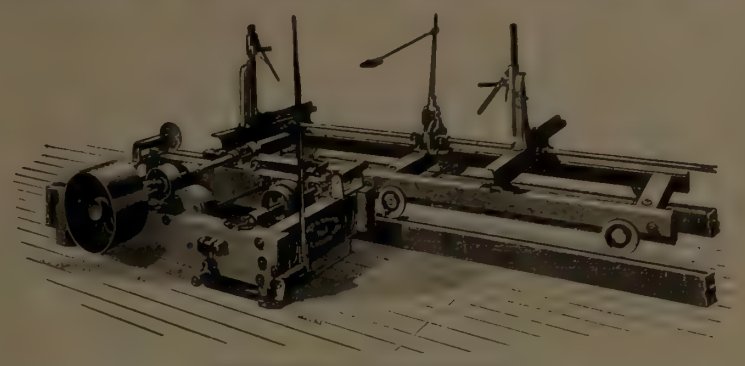

Manufacturers of the best quality of
Circular Sawmills and Sawmill Machinery
We specialize on mills of from 5,000 to 40,000 feet capacity.
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Buy
FIRE BRICK
On a Quality Basis

Use as much care in its selection as you would in choosing the lumber that goes into your products.

No brick gives the best results for every purpose. The brick you would use for your refuse burner may not give you the best results for your Dutch Oven.

We Manufacture the Following Well Known Brands

"Elkco Special," "Elk Steel," "St. Marys," "Keystone" and "Rotex"

When sending us your inquiries, specify for what purpose you need the brick.

We Make a Specialty of
REFUSE BURNERS, BOILER SETTINGS, KILNS, DUTCH OVENS, ETC.

Catalog sent upon request.

Elk Fire Brick Co. of Canada, Limited
HIGH GRADE FIRE BRICK and CLAY
Sun Life Bldg., Hamilton, Canada

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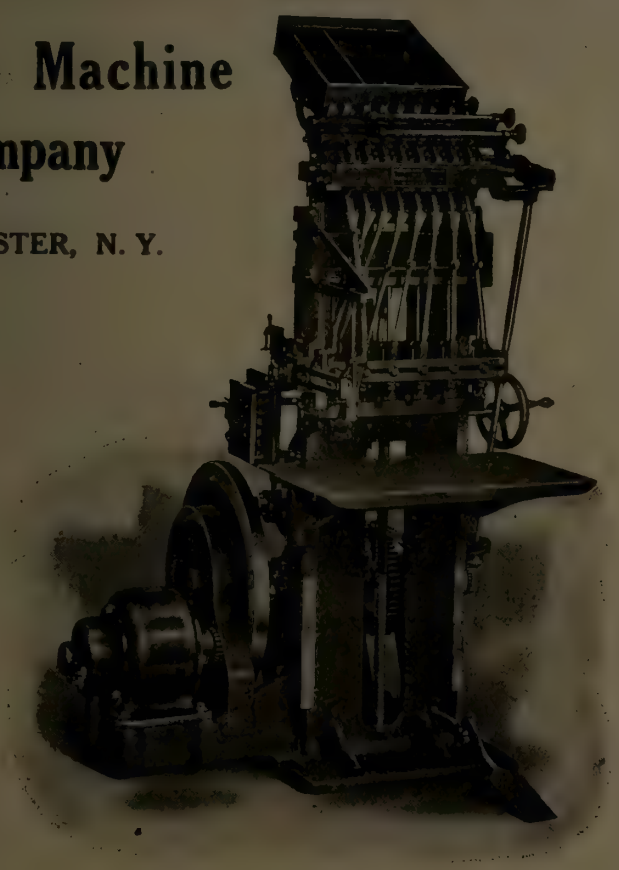
RHODES, CURRY COMPANY, LTD., Head Office, AMHERST, N. S.
Branches at Halifax, Sydney and New Glasgow, N.S.

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

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Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
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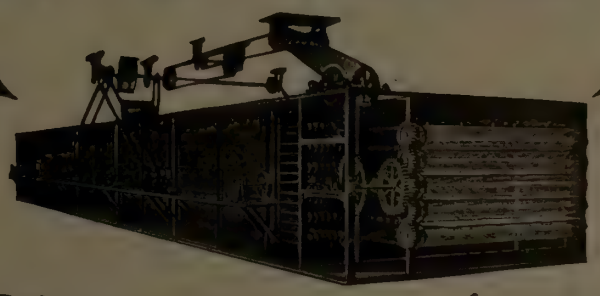
PROCTOR VENEER DRYER



Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

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Eagle Lumber Company
Edgar Lumber Company
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Grant & Campbell
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Smith Company, S. Morgan.

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Waterous Engine Works Company
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Austin & Nicholson
Becker & Co.
New Ontario Colonization Co.
River Ouelle Pulp & Lumber Co.

YELLOW PINE
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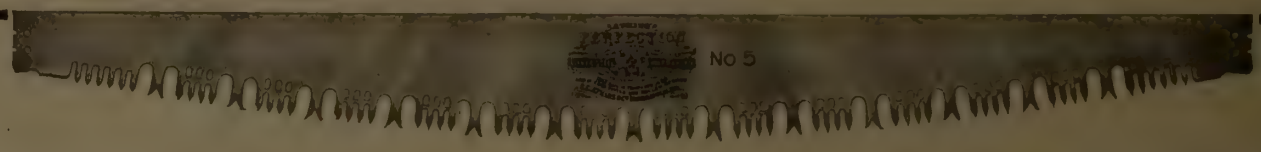

ATKINS
STERLING STEEL SAWS

Give the results you are looking for. They run easier, cut faster and are guaranteed to hold their edge longer than any other make of saw.

Each one is an investment that will bring large returns.

Try them and see—you'll not be disappointed.

Specify ATKINS on your next order — It means economy.

E. C. ATKINS & CO.

Factory: HAMILTON, ONT. **Branch: 109 Powell St., VANCOUVER**

SURROUND YOUR BUSINESS WITH NEVER-FAIL BELTING

"Strength of Gibraltar," while not our phrase, aptly applies to the rubber belting made by us and sold under the name **"Gibraltar Redspecial."**

⚜ ⚜ ⚜

It would be interesting to us if you, as a user of belting, would, before making your next purchase, get a verdict on **"Gibraltar"** from some of your friends.

⚜ ⚜ ⚜

Ask them if a stronger belt than **"Gibraltar"**—one giving more service with less loss of power—can be obtained anywhere; if any other product will survive heavy loads better; and, if, in withstanding the jerky strains consequent on fluctuation of power, any other belt can show a higher quality of friction in uniting the plies than **"Gibraltar Redspecial."**

⚜ ⚜ ⚜

We have evidence aplenty, in the form of voluntary testimony, which shows that for strength, durability and general service **"Gibraltar Redspecial"** is matchless. In the Biggest Saw Mills, Biggest Pulp and Paper Mills, Biggest Manufacturing Plants, one "driving force" is nearly always in evidence—Dunlop **"Gibraltar"** Belting.

⚜ ⚜ ⚜

For Drives, Rotaries, Edgers, Lath and Shingle Machines, or any kind of Transmission work, there is nothing better than Dunlop **"Gibraltar Redspecial"** Belting.

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And what Dunlop **"Gibraltar Redspecial"** means to users of Transmission Belting, Dunlop **"Samson"** ensures to users of Conveyor or Elevator Belting.

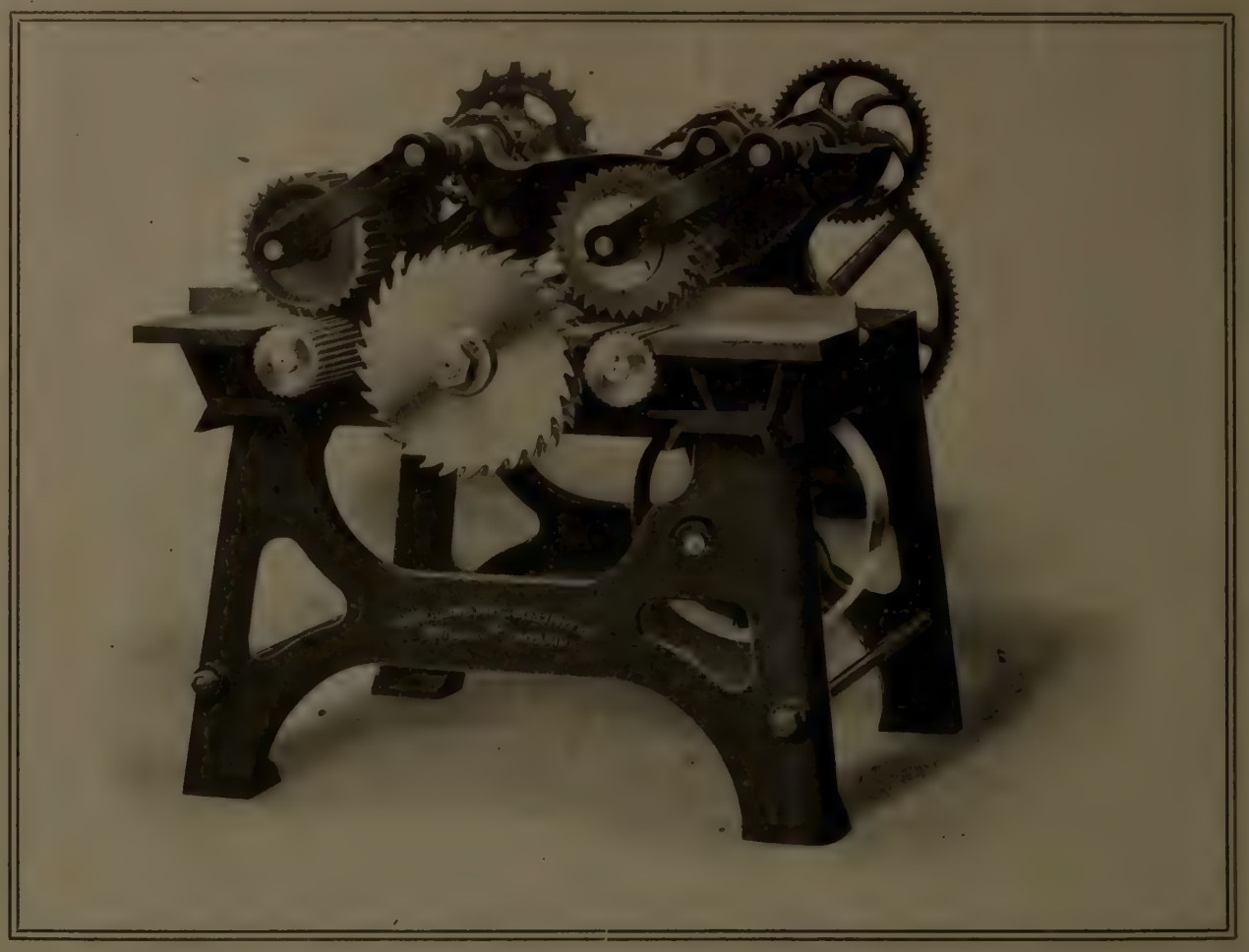
NO LOAD TOO HEAVY

DUNLOP "GIBRALTAR" BELTING

NO SERVICE TOO EXACTING

D. 26

Dunlop Tire & Rubber Goods Co., Limited



This mark on your saw mill machinery is an indication that your lumber manufacturing equipment is the best and most economical money can buy.

No. 2 Bolter

This No. 2 Bolter is the ideal machine for the mill of medium production using a single band or circular. It will handle **all** the slabs from such a mill with ease.

The frame is of unit construction, the three saws are of 16 inches diameter adjustable for lath, pickets or slats and the feed rolls are power driven.

For a solid substantial machine of ample capacity you cannot beat our No. 2 Bolter.

Ask us for catalogue.

The E. Long Manufacturing Company, Limited

Orillia, - - Ontario

We build up-to-date Machinery for Sawmills of every capacity—circular or band
Catalogues on request

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You can put a 6-in. cant through this edger and know that it will come through edged to a hair. Edger carries 22-in. saws, 6-in. saw collars, leaving 7-in. clear saw blade, more than enough margin for 6-in. stock

Mandrel is 3⅞-in. in diameter, the three bearings that support it are each almost 10-in. long—the rest of the machine is built in proportion. That's why Waterous New Champion Edgers can be crowded to the limit and will turn out full capacity, day after day, without straining.

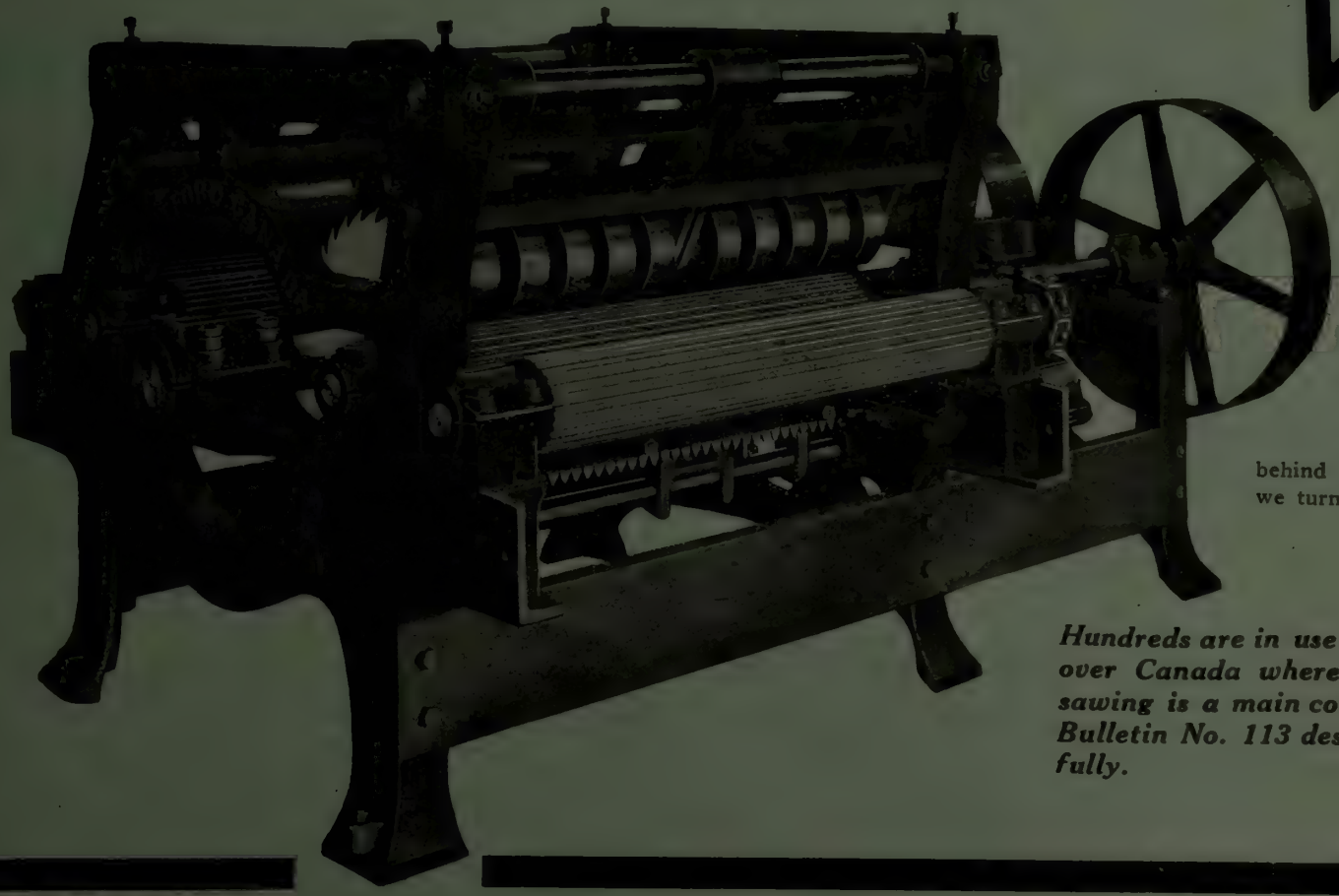
Notice the feed rolls, two before and two behind the saws. They are machine fluted to give a firm, secure grip on the timber that holds it fast, but will not mar it in any way.

The press rolls are divided, too, making both sides of the machine independent of each other. It's a worth while feature, decidedly.

WATEROUS NEW CHAMPION EDGERS

are built with 40", 48", 56", 60" and 72" opening. They carry as many as four movable and two stationary saws without difficulty.

These edgers cut true and to dimension at all times. The guides are rigid and cannot shift in the cut. They are crowded to correct position and held immovably in place by a steel setting gauge that drops upon them. *No other edger has this feature.*



Waterous New Champion Edgers are fast and accurate cutting, easily operated, and perfectly safe. We stand behind every machine we turn out.

Hundreds are in use in mills all over Canada where quality of sawing is a main consideration. Bulletin No. 113 describes them fully.

The Waterous Engine Works Co., Ltd., Brantford, Canada

$5,000,000.00

worth of mixed metal sold annually.

"FROST KING" METAL

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price **30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our TROJAN BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 80,000 in a head wind.

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Limited

General Mill Supplies MONTREAL

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

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Manufacturers of Lumber Tools

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It's a Pink anyway you take it, and it's the best Peavey made

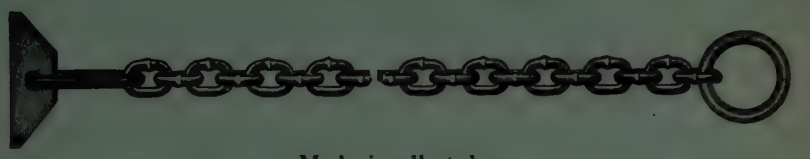
Canada Lumberman & Wood Worker

"DART" UNION PIPE COUPLINGS NEVER LEAK

BRONZE TO BRONZE AT THE JOINT

THEY STAY TIGHT because there is nothing to deteriorate at the joint and the heavy iron parts will not stretch or pull apart.

Your jobber sells them.



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Electric-Welded Boom Chain

We also specialize

Log Chains and "Dreadnaught" Loading Chain

Made in Canada Write to Fully Guaranteed

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AMACOL
TENAXAS
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MASCOT
W.E.W. BABBIT

Atlas Babbitts

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A BRAND TO MEET ANY OF YOUR REQUIREMENTS AND SATISFY YOU

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THE CANADIAN B.K. MORTON CO. LIMITED
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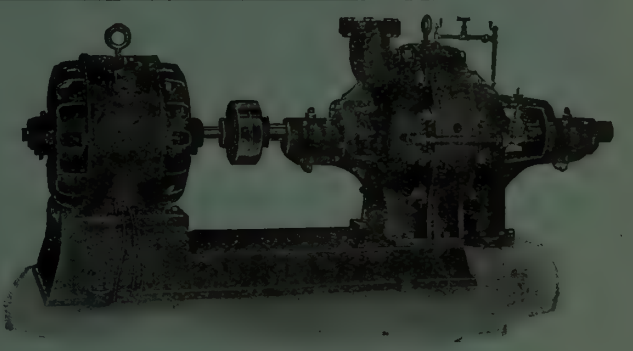
GENUINE "TURBROS"

Balata Belting

Waterproof and Stretchless.
The best belt for sawmills.

Atlas Asbestos Co., Limited, Montreal

(Formerly Turner Bros. Canada Limited)



PUMPS for every Service

TRY US!

The Smart-Turner Machine Co., Limited
HAMILTON, CANADA

BUY EMPIRE GOODS WHEN EFFICIENCY IS GUARANTEED.

J. M. T. Reducing Valves

PATENTED

We offer the one successful valve that will positively reduce the steam pressure from boiler to required power and keep the lower pressure even, continuously. In constructing this latest type reducing valve we have gone over every previous good idea along this line, and our present type has proven absolutely reliable under all conditions. We sell the J. M. T. Reducing Valve under a positive guarantee. Send for illustrated folder, giving method of operation, prices, installations, etc., of this valve.

The James Morrison Brass Mfg. Co., Limited
93-97 Adelaide Street West, TORONTO

MADE IN CANADA.

Alphabetical Index to Advertisers, Page 54 Classified Directory to Advertisements, Page 56

DUNLOP

PACKING BELTING HOSE

Hose, Belting, Packing, are the Big Three in the "Mechanical" departments of the rubber business.

It is a far cry from our first efforts in these lines—after being the founders of the pneumatic tire industry in Canada—to the present time when hundreds of feet of floor space are given over exclusively to the manufacture of Packing, Belting, Hose; and scores of artizans specialize on suchlike products exclusively.

You can obtain some idea of how we have grown, not only as tire makers, but as manufacturers of Hose, Belting, Packing, etc., by reading this statement:—

"Dunlop factory additions for 1912 were alone nearly as great as the entire floor area of seven years previous; and in 1915 the additions were just double those of 1912."

Would you like a sample of any one or more of the Dunlop "Big Three"?

Dunlop Tire & Rubber Goods Co., Limited

Head Office and Factories: Toronto.

Branches in the Leading Cities.

M. 21

SEAL OF QUALITY

Specials in Dry Stock

Merchantable Spruce

2x4x10/16	50 M ft.
2x5x "	60 M ft.
2x7x "	100 M ft.

Merchantable Hemlock

1x 9x10/16	40 M ft.
1x10x "	100 M ft.
2x10x "	75 M ft.
2x12x "	37 M ft.

5th Quality Spruce

3 x 5 and up x 6/16 150 M ft.

6 cars 1½ x 4' **Merchantable Spruce Lath** (this season's cut)

Bartram & Ball Limited

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Drummond Bldg. - Montreal, Que.

British Columbia Forest Products

Rough or Dressed

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We can fill your orders from cars in transit.

At the present time we have 31 cars East bound.

Wire us your inquiries.

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SPECIALISTS IN BRITISH COLUMBIA FOREST PRODUCTS

Sole representatives of The Victoria Lumber & Manufacturing Company, Ltd., in Eastern Ontario, Quebec and Maritime Provinces.

George Gordon & Co.

Limited

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Manufacturers of

RED and WHITE PINE

PLANING MILL **DRY KILN**

Logging By Rail Enables Us To Run Our Plant the Year Round

This Means Better Service to the Trade

Hemlock, Pine and Hardwoods

ALWAYS IN STOCK READY FOR SHIPMENT

Hemlock, Hardwood and **Spruce Timbers** a specialty—lengths 10/26' long.

We can dress and rip to your orders.

A postal will bring you our monthly stock list with our best prices

Fassett Lumber Company, Limited

Fassett, Que.

LOOK—

for immediate shipment from our siding in Hamilton.

CAN LOAD MIXED CARS

NORWAY PINE

1 car 2 x10—20.
1 car 2 x 10—18.
2 cars 2 x 8—18.
1 car 2 x 8—20.
1 car 2 x 8—16.
1 car 2 x 8—12 and 14.
12,000 ft. 2 x 6—20.
10,000 ft. 2 x 6—18.
30,000 ft. 2 x 6—16.
1 car 2 x 5—10 to 16.

WHITE PINE

1 car 4 x 6 and wider.
1 car 6 x 6 and up.
1 car 3 x 6 and up.
1 car 6/4 Pattern Stock.
1 car 1 x 4 and up No. 2 Pine Culls.

YELLOW PINE

60,000 ft. 3 x 6—10.
1 car 3 x 6—14.

SPRUCE

1 car 3 x 6—10 to 16.
1 car 2 x 4—10 to 16.
1 car 4 x 4—10 to 16.
1 car 3 x 4—10 to 16.
1 car 2 x 4 and up No. 2 Spruce.

The Long Lumber Company

Hamilton, Ont.

Interior view of Shingle Mill at Roche Point, B.C.

It Stands to Reason---

Good Grades and *Prompt Shipments* are assured when dealing with a concern which has two of the largest and most modern mills in British Columbia.

Write our Eastern Sales Office for prices.

Fir Timbers, Flooring, Ceiling, &c. **Cedar Shingles, Siding, &c.**

Vancouver Lumber Co.

Fir Mills—False Creek, Vancouver, B.C.
Cedar Mills—Roche Point, Burrard Inlet, B.C.

701 Excelsior Life Building
TORONTO, ONT.

LIMITED
Representatives { CHAS. PLANT / C. J. BROOKS

THE TIME
OF
HARVEST

IF you would reap the benefit of our large, carefully-selected and well-manufactured stocks of

SPRUCE and PINE LUMBER

and

BEAVER BRAND WHITE CEDAR SHINGLES

Write for our monthly stock and price list.

BATHURST

BATHURST LUMBER COMPANY

LIMITED

Bathurst, N.B., Canada

Ten Band Mills to Serve You

Mills and Railway Connections

Fredericton, N.B.	Railway connection		C. P. R.
Plaster Rock, N.B.	"	"	C. P. R.
Nelson, N.B.	"	"	I. C. R.
Edmundston, N.B.	"	"	C. P. R. or Temiscouata Ry.
Baker Brook, N.B.	"	"	Temiscouata Ry. and N.T.R.
Glendyne, Que.	"	"	N. T. R.
Escourt, Que.	"	"	N. T. R.
Cabano, Que.	"	"	Temiscouata Ry.
Whitworth, Que. (No. 1, No. 2)	"	"	Temiscouata Ry.

Fraser Limited, Fredericton, N. B.

ROUGH AND DRESSED SPRUCE, WHITE CEDAR SHINGLES, SPRUCE LATH, PIANO SOUNDING BOARD STOCK.

Watson & Todd Limited
OTTAWA

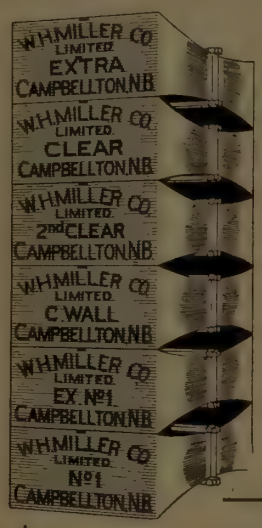
RED PINE WHITE PINE
SPRUCE

SEND US YOUR ENQUIRIES

The
Harris Tie & Timber Co.
Ottawa - Canada

Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

Let us quote on your requirements for
Spruce and Pine Lumber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We manufacture and export all kinds of it.

WE ALSO MANUFACTURE
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PULPWOOD

Shipments by rail and water

Prompt--reliable--carefully handled

We Specialize in
New Brunswick White Cedar Shingles
LET US QUOTE YOU

W. H. Miller Co., Limited
Campbellton, N.B.

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LUMBER MERCHANT—SASH and DOORS
The
Largest Eastern Warehouse of British Columbia Products

I can supply at short notice mixed carloads of

Fir Doors, Columns, Mouldings, Red Cedar Clapboards and Shingles, Fir V-Joint Sheeting, Flooring

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— SPECIALTIES —

TIMBER - DIMENSION - FINISH

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Milne, Hall & Johns Co., Inc.
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OAK WAGON STOCK
Our Specialty

750,000 ft. Thick Oak Plank in stock, 2 inch to 5 inch thickness. Quick shipment can be made.

Send us your requirements and we will quote delivered prices.

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Wholesale Lumber Dealers
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DESCHENES - - - QUEBEC

White Pine
Red Pine
Spruce
Lumber and Lath

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The fact that our stocks are complete and well assorted assures you of **Satisfactory Service, Good Grades** and **Right Prices.** We want your inquiries and orders when in the market for

Railway Ties and Pulpwood
Rough and Dressed Lumber and Lath

We specialize on cutting to order all sizes of

Dimension Timber

Also in Dressing in car or mixed lots 1", 2" and 3" to customers' specifications.

Complete stocks always ready for prompt shipment.

We are the Largest Producers of Railway Ties in the Dominion

Austin & Nicholson

Chapleau, Ontario

Long Leaf Yellow Pine, Louisiana Red Cypress

Annual Capacity 350,000,000 Feet Yellow Pine
50,000,000 Feet Red Cypress

Nature's best in forest products

LET US QUOTE YOU PRICES

Up-to-date mills and unsurpassed ***SERVICE.***

We are ***prepared*** to fill orders—try us.

CHICAGO LUMBER & COAL COMPANY

Manufacturers

General Offices: EAST ST. LOUIS, ILLS.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

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BASS WOOD

We offer for immediate shipment—
1" and 1½" Dry Basswood

DRY BIRCH STOCK

We offer in Birch End Stock—
1 x 8½" 1 x 9" and wider
1 x 6 and 7" 1½" to 4"

SPRUCE BASSWOOD
ASH HEMLOCK and PINE

HART & McDONAGH

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TORONTO

FOR SALE

Standing Timber

in Large or Small Blocks

and

Sawmill Machinery

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the town of Parry Sound, Ont.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, McConkey, Mills, Allen, Secord, Falconbridge and Street.

Special bargains in the townships of Falconbridge and Street for small mills.

We have the following Sawmill Machinery For Sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.
1 Double cylinder steam nigger, right hand.
1 Log Loader for right hand mill.
1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.
1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.
1 left-hand steam nigger.
1 Log-loader.
1 Endless chain jack ladder with two kickers complete for right and left hand mills.
2 Roger Gang Edgers for 8-in. cants and lumber.
1 Waterous double edger, 6 saws.
1 2-saw Trimmer.
1 20-ft. Slash Table.
1 16-ft. Revolving Slash Table
1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.
1 Lath Mill with bolter.
2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Hand Machine for cut-off saws.

POWER PLANT

1 Double Duplex, high pressure Water Pump.
5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.
2 125 h.p. Water Wheels.
1 Upright Engine for sawdust conveyor.
1 10 h.p. Engine.
1 Wood Machine for 22-in. wood.
1 Edger for ripping dry lumber, installed.
1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

All of the above open for inspection at Parry Sound.

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Limited

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Toronto, Canada

Mill Yard.

Spruce, Tamarac, Whitewood and Poplar Lumber

SPRUCE AND WHITEWOOD LATH

Planing Mill in connection with Saw Mill

ROSSED SPRUCE PULPWOOD

Full supply of Seasoned Lumber always on hand.

RICH CLAY LOAM LANDS FOR SALE—Townships of Haggart and Kendry. District of Temiskaming. Excellent opportunities for the settler. Write for particulars.

New Ontario Colonization Company, Limited

Sales Office, BUFFALO, N.Y.

Mills:—Jacksonboro, Ont. Located on Transcontinental R.R. 32 miles west of Cochrane.

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SPECIAL PRICES

The Preservation of Structural Timber, by Howard F. Weiss. Published in 1915 by McGraw-Hill Book Company. 312 pages, illustrated. Price $3.00.

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Baughman's Buyer & Seller, 75c.

Utilization of Wood-Waste (Second Revised Edition), by Ernst Hubbard. Published in 1915 by Scott, Greenwood & Sons. 192 pages, illustrated. Price $1.50.

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FISHER & DAVIS MFG. CO.

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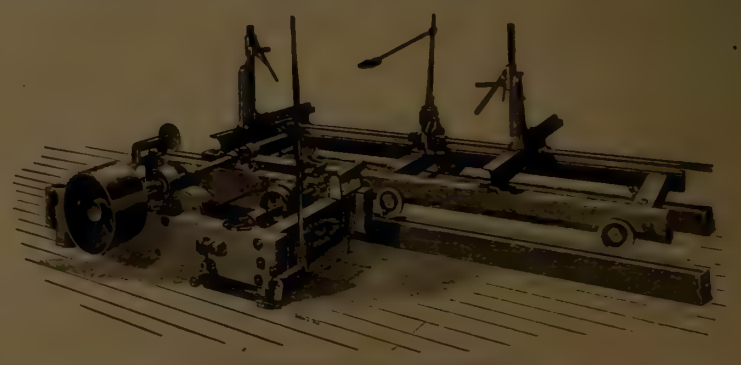

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We specialize on mills of from 5,000 to 40,000 feet capacity.

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F. W. Gordon, Mgr.

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Western Soft Pine
Western White Pine
Douglas Fir in
Timbers, Flooring, Ceiling, Trim, Doors, Mouldings, Etc.
"QUALITY BRAND" Shingles

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Head Office
704 Confederation Life Bldg., TORONTO, ONT.
We are Ontario Representatives of
The British Columbia Mills Timber & Trading Company
VANCOUVER, B. C.
We specialize in "QUALITY BRAND" Douglas Fir
WESTERN FIR DOORS
We represent in Ontario and Easten Canada
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ONTARIO PRODUCTS
White Pine Red Pine
Hemlock Spruce
Lath

NEW BRUNSWICK PRODUCTS
White Cedar Shingles
Spruce and Pine Lumber and Lath

ONTARIO
Canada's Banner Province

Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

Pine production, 905,442,000 ft. B.M.
Pulpwood, 246,282 cords.
Railway Ties, 5,704,459.

Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

Ontario's vast resources offer unsurpassed opportunities to the lumberman.
For maps and full information regarding Ontario, apply to

HON. G. HOWARD FERGUSON,
Minister of Lands, Forests and Mines.

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The Victoria Harbor Lumber Co., Ltd.

Manufacturers of

Lumber, Lath and Shingles

Mills at Victoria Harbor, Ont.
HEAD OFFICE.
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Manufacturers of

SPRUCE, HEMLOCK TIMBERS AND PILING AND LATH

Prices promptly given on all enquiries.

New Glasgow, N. S.

FOR SALE

30,000 ft. 1 x 4 and up No. 2 Spruce, D1S.
60,000 ft. 5/8 x 4 and up Crating Spruce
50,000 ft. 1 x 3 and up Crating Spruce
50,000 ft. 1 x 3 and up Crating Spruce
200,000 ft., 1 x 4 No. 2 Jack Pine.
500,000 ft. 1 x 5 and up No. 2 Jack Pine.
800,000 ft. 1 x 4 and up No. 2 Jack Pine
100,000 ft. 1 x 12 No. 1 Mill Cull White Pine.
Also Hemlock and Pine.

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Lath Wanted

We are Buyers of ALL GRADES

WHITE PINE, SPRUCE and HEMLOCK LATH

Will contract for entire output and pay spot cash

Send full particulars as to grade, quantity and prices

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Veterinary Wonder Remedies

10,000 one dollar ($1.00) bottles Free to horsemen who give the Wonder a fair trial. Guaranteed for Colic, Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 25c for Mailing Package, etc. Agents wanted. Write your address plainly. DR. BELL, V.S., Kingston, Ont.

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Tie your lath with Laidlaw wire. It saves you money. It means satisfaction to the dealer and contractor.
Write for Quotations.

LAIDLAW BALE-TIE CO., Ltd.

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CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS
OFFICE, SCHOOL CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

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When in the market for

White or Red Pine

or for

Ontario Hardwoods

Let Us Quote You

SPECIAL !

200 M' Good Cedar Squares

8 x 8—10/16
8 x 10— "
10 x 10— "
10 x 12— "

We are ready to contract for Output of Mills in any Ontario Soft or Hardwoods. Highest cash prices paid, and would advance money for operations.

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

705 Excelsior Life Building
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FOR SALE

75,000 ft. 1 in., 1¼ in., and 4 in. Birch, log run, mill culls out.
Good dry stock, 1915-16 sawing.
750,000 ft. 3 in. Spruce, 1917 sawing.
Prices on application:—

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HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway, Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties,
Yellow Pine Timber a Specialty.
Interior Trim Mill Work

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Eastern and Southern Lumber

We are at all times in the market for dry WHITE PINE, DIMENSION SPRUCE, SPRUCE BOARDS, HEMLOCK BOARDS, LATH and CLAPBOARDS.

Advise us of your Market Prices and Stocks

A. H. Richardson Lumber Co.

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Tea that is all genuine leaf and produces the greatest quantity of flavoury satisfying infusion

"SALADA"

Send for samples and prices.
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Sawed Hemlock
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Lumber

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Efficiency Demands

Exact knowledge of where your lumber is and how much it runs to the acre in every spot. Our Density Plans show it. Operators are enthusiastic about them. Write for a sample.

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Hydraulic and Screw
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Special machinery made to order
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Appraisal of timber lands, timber maps, logging efficiency reports, planting. Maximum of accuracy in minimum time and at minimum expense.
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WOOD BROKERS and MEASURERS
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Staves Hoops
Headings
James WEBSTER & Bro. Limited
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"Well Bought is Half Sold"

We Offer
the following lots of
Dry White Pine

5 Cars 1 x 4/7 in.—12/16 ft. D. Sels. and Btr.
4 " 1 x 12 in.—12/16 ft. Common.
1 " 5/4 x 8/up—12/16 ft. D. Sels. and Btr.
5 " 6/4 x 7/up—12/16 ft. Canada Dressing and Btr.
(This item very suitable for Door trade)

2 Cars 2 x 8/up—12/16 ft. Canada Dressing and Btr.
2 " 2 x 9—12/16 ft. Canada Dressing and Btr.
2 " 2 x 4/7—12/16 ft. Canada Dress. and Btr.
4 " 2 x 8/up—12/16 ft. Common.
4 " 2 x 4/7—12/16 ft. Common.
10 " 2 x 4/up—6/16 ft. No. 2 Culls.
10 " 3 x 7/up—6/16ft. No. 2 Culls.

Also

5 Cars 4/4 dry No. 2 Com. and Btr. Black Ash.

Also these few items in Dry Lath

3 Cars 3/8 x 1½—32 in. M.R. White Pine.
1 Car 3/8 x 1½—36 in. M.R. White Pine.
5 Cars 3/8 x 1½—4 ft. No. 1 White Pine.

We shall be glad to quote you on the above

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine
Hemlock
Hardwood } **LUMBER**

712-20 Traders Bank Bldg., **Toronto, Ont.**
Mills: Byng Inlet, Ont.

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It pays to advertise your wants in the "Canada Lumberman" because you get results. Read this letter.

C. B. Janes & Co. Limited
VENEERS
Orillia, Canada

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Gentlemen,

Kindly discontinue our little sale ad., one car lumber.

We got fifteen enquiries for the one car.

Yours truly,

C. B. JANES & CO., LTD.
(signed) C. B. Janes

If an "ad." in our Wanted and For Sale Department will sell lumber for Mr. Janes it will buy or sell for you. What have you to advertise?

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

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FIR TIMBER and Finish, CEDAR SHINGLES and Lumber

Sole Selling Agents for **The British Columbia Mills Timber and Trading Co.**, of Vancouver, B.C., for Fir Finish and Flooring for the Province of Quebec and the Maritime Provinces.

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Sole Selling Agents for Eastern Canada for WHEELER OSGOOD CO., Tacoma, Wash.—Doors, Turned Stock &c.

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All Grades in White Pine Lath A Specialty

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LET'S GET TOGETHER

JOHN DONOGH & CO.

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1 x 4-5-6-9 Merchantable
Rough or Dressed

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Manufacturers of—

Nailing Machines,

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Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

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Established 1873

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Mills and Head Office
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Manufacturers of

WHITE PINE

RED PINE

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FIR TIMBERS

Fir Flooring, Ceiling and Siding.
Clear Fir Finish, rough and dressed.
B. C. Red Cedar Bevel Siding.

Red Cedar Shingles
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Manufacturers — Wholesalers
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Is Our Particular Specialty
The Heavier it is the Better we like it
We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.
Our grade is posstively right, and brices will please
Timberland Lumber Co., Limited
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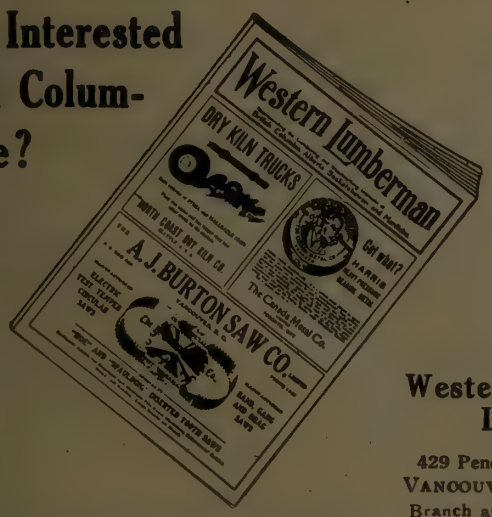
Mills at Craigs on the B.C.E.R.
Shipments by C. P. R., C. N. R., G. N. R., and N. P. R.

Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



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Branch at Winnipeg

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MANUFACTURERS OF
British Columbia Red Cedar Exclusively
Cedar Bevel Siding, Finish, V-Joint and Mouldings
Straight or mixed cars with XXX and XXXXX Shingles. Stocks carried at Lindsay, Ont., for quick shipment.
Full particulars from our Eastern Agents.
Eastern Agents, Gull River Lumber Co., Ltd., Lindsay, Ont.
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Dressed and Rough Spruce, White Pine and Banksian Pine

We make a specialty of transit dressing, re-sawing and ripping lumber in transit at our mills in La Tuque, P. Q., located on the Canadian Northern and Transcontinental Railroads.

BROWN CORPORATION

Sales Office: PORTLAND, MAINE

Plant of The Stearns Salt and Lumber Co.

Stearns Quality

Michigan Forest Products

Hardwood, Hemlock, White Pine

LUMBER and TIMBER

40 Million Feet Dry Stock in pile containing a complete assortment for rush shipment.

Grades— GUARANTEED —Quality

Hardwood Specialists

The Stearns Salt & Lumber Co.

Ludington, Mich.

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at—Nashville, Tenn. Basic, Va. *Mills at*—Sumter, S.C. Winchester, Idaho

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

WISTAR, UNDERHILL & NIXON

Real Estate Trust Bldg., Philadelphia, Pa.

New **RAILS** Relaying

12 to 80 pounds per yard.

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The Rat Portage Lumber Co., Limited, Vancouver

MANUFACTURERS OF

Douglas Fir, Spruce, Cedar and Hemlock Lumber

Rough Timbers, Dimension, Flooring, Ceiling, Siding, Interior and Exterior Finish of all kinds including Mouldings. Fir, Spruce and Cedar Lath

Prompt shipment of Fir timbers in all sizes and up to 80 feet in length

AIR DRIED CEDAR SHINGLES We specialize in supplying air dried Cedar Shingles, these cost more than kiln dried Shingles but make a better roof and last much longer

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A Profitable Industry For Lumbermen

There is a handsome return on any investment in the chemical industry—particularly in the manufacture of those chemicals which we heretofore imported from Germany.

The industry is particularly attractive to lumbermen as many valuable chemicals are obtainable from wood waste by our complete wood distillation and chemical plant.

Guaranteed Results

BLAIR, CAMPBELL & McLEAN
GLASGOW, SCOTLAND LIMITED

Est. 1838. Cables: "Blazon, Glasgow". Code: ABC—5th

Safety-First Light Speed Car

We have placed this car on the market because of an urgent demand for a car light enough for one man to handle easily, and yet strong enough to carry two to four passengers with luggage or material. The frame is made of 2x1x3/16 inch channel steel. Length of car platform 5 ft. 1 in. Width of car platform 4 ft. 3 in. Wheels are 16 in. pressed steel, brakes on all four wheels. Weighs approximately 450 lbs. One man can easily put it on or off the track anywhere. Engine is a 2½ H. P., reversible and free running. This car can conveniently be used by timekeepers, logging foremen, superintendents; in fire patrol service, etc.

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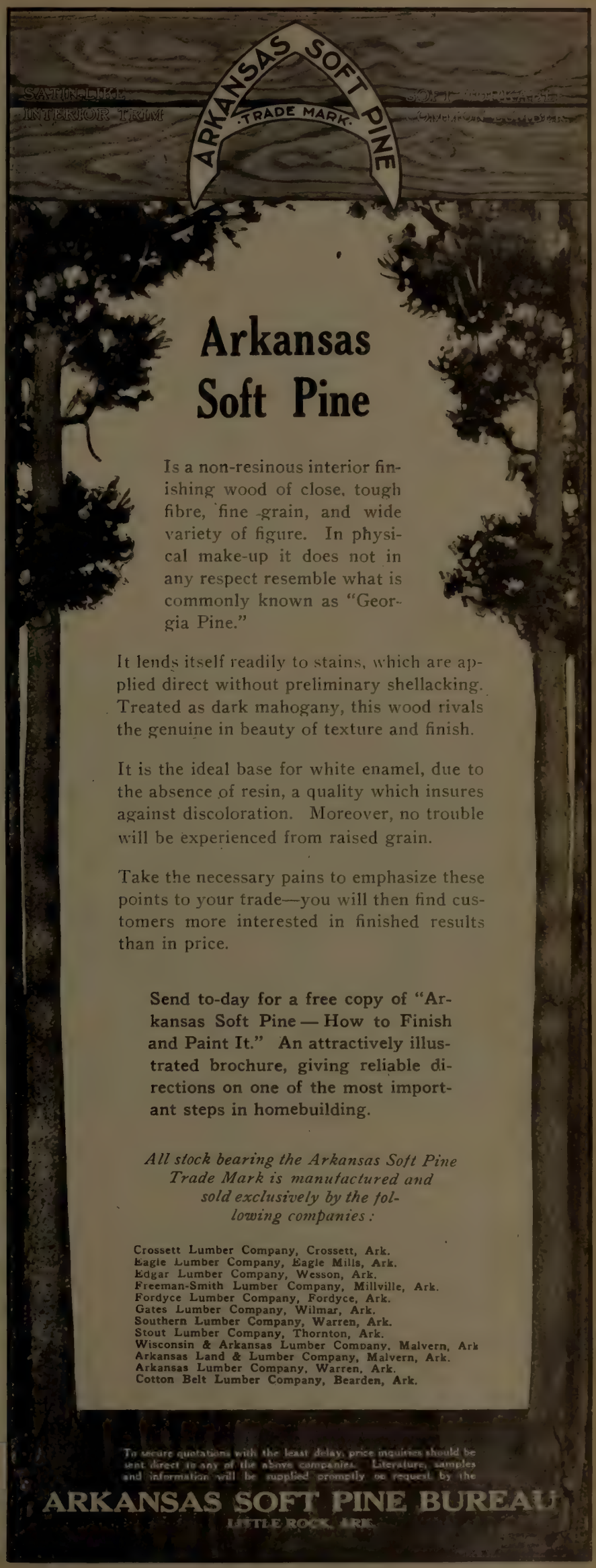

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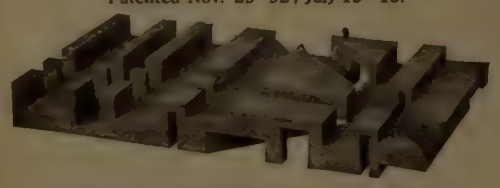

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Annual Number

August 1st. 1917

The Annual Number of the "Canada Lumberman and Wood Worker" is regarded by the trade throughout Canada as a comprehensive review of the lumber situation and its varied activities.

The 1917 Annual Number will contain interesting statistics and special articles on all phases of the lumber industry, from the logging camp in the heart of the bush, to the cargoes of finished product loaded for export to all quarters of the Globe.

The world has awakened to the fact that merchant ships must be built to replace the hundreds that have been destroyed. Because of high costs and lack of prompt deliveries, steel is practically out of the question. Wooden ships are quickly constructed and there is plenty of ship-building material available. Canada is alive to this situation and the lumber trade is the first to take advantage of it. Every shipyard is now busy and many more will be put into operation before the end of this year. There is a world-wide shortage of freight cars. Many large car orders are now being placed for which large quantities of lumber will be needed.

The Great War, with all its attendant mobilization of material, opens new demands for wood from many sources. Then, too, peace will come some time, and the rebuilding that must then be done will demand large amounts of wood.

The lumber industry is on the eve of a wonderful development. Lumber manufacturers, and manufacturers of wood working machinery and supplies, would do well to prepare now for this unprecedented demand for wood and wood products that must shortly ensue.

Canada Lumberman & Wood Worker

Toronto - Ontario

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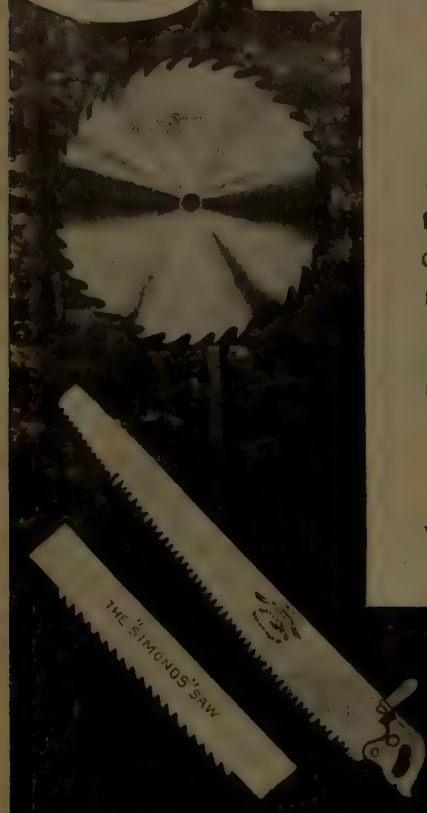

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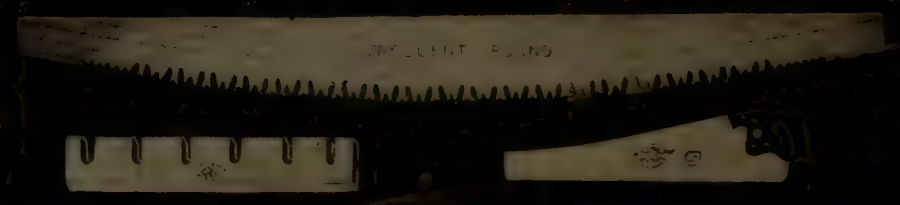

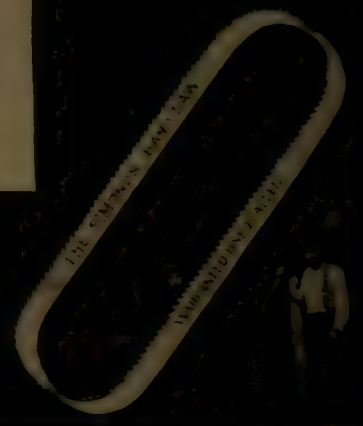

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Vol. 37 **Toronto, June 15, 1917** **No. 12**

Troubles of the English Timber Merchant

Lumbermen in Canada from one end of the country to the other are discussing little else these days than the disturbed conditions of trade, on account of the shortage of labor, the inability of the railroad companies to handle the traffic offered, the cutting off of the export trade to Great Britain as a result of British Government regulations, the high costs of provisions, labor, etc., and numerous other difficulties with which they find themselves confronted. While it would be foolish to minimize these difficulties, the lumbermen of Canada may console themselves to a considerable extent by a study of the situation in which the timber merchants of Great Britain find themselves to-day as a result of the drastic government regulations that have been passed for regulating the trade and for enabling the government to obtain the large quantities of timber it requires. Practically speaking, the import of timber into Great Britain has been stopped, and the sale of stocks has come almost to an end, except in the case of sales to the Government, or such sales as can be shown to be of national importance.

The philosophical way in which the situation is faced by English dealers, however, is something in which they may justifiably take pride. The roots of their business relationships and activities have been practically torn out, yet we find them looking upon the matter in a patriotic manner, though lamenting considerably over the difficulties that they have had to meet, and probably must meet for a long time to come. The situation is discussed in an interesting manner in a recent issue of Timber, of London, England, which says:—

"Edicts and announcements from various Government Departments have been falling thick and fast on the timber trade, every one of them further curtailing the liberty of the individual and restricting his opportunities for trading. Indeed, the only satisfactory feature is that the timber merchant is beginning at last to understand the position. It is clearly evident now that the British Government intends, during the remaining period of the war—or, at any rate, as long as the submarine campaign makes it necessary to exercise such strict supervision over imports—to take the timber trade pretty well into its own hands, and we are afraid it is of little use to make a fight against what appears an inevitable development. Of course, differences of opinion exist as to the wisdom of particular measures, and it is easy to make out a case against almost any of the various restrictions which the authorities impose, but a broader view must prevail, and the timber trade should persevere in the patriotic course which it has hitherto pursued. Allowances must be made for the tremendous responsibilities of the Government, for the hasty manner in which new Departments have often to be established, and for the difficulties of foreseeing in what way general restrictions will affect special branches of trade or individual businesses.

"Many other industries besides that of the import timbers trade have, during the last year or two, been taken over by the State—some with much greater success than others; during all this period timber importers have done well, and their immunity from much interference had almost led them to hope that, even if their trade was curtailed, enough would remain in their hands to enable them to carry on until peace brought back something like normal conditions. But it is now the timber trade's turn to be absorbed and to give up the little remnants of liberty still remaining.

"It is naturally a very general opinion that a much fairer way of treating the trade would have been to allow private firms still to import and to sell under State control. As maximum selling prices are fixed, it is contended that the whole business could have been done just as economically, and with less disturbance to all connections, than will be occasioned by the present methods. The Government could have allowed whatever tonnage was necessary, as it did on some occasions in 1916; the organization of trade would have continued, there would have been no need for a large number of official appointments, and the payment of many good salaries would have been saved to the nation. On which side the balance of advantage lies, looked at from a national point of view, we cannot, of course, presume to say. The Government alone is in possession of the necessary data on which to form a definite conclusion, and as patriotic Englishmen we can only acquiesce in the position.

But criticism is allowable, and if we take a long view and look forward to the effect of present measures on business in the coming days of peace, we are faced with different considerations altogether. Assuming for the sake of argument that it might cause the Government some inconvenience and cost the nation a little more money if the timber trade were now left in the hands of importers under State control, there can be no question about the ultimate compensating advantages to the country in the times of peace that are to follow. During a war, extraordinary and repressive methods must often be adopted, but they are a necessary evil; and State interference with private trade should never be carried to greater lengths than is absolutely requisite for the tiding over of an abnormal period. If, owing to the present methods of treating the timber trade, old-established firms are dissolved, old connections broken off, and good organization scrapped, the country will be all the poorer after the war, and will pay dearly, perhaps too dearly, for its emergency legislation.

"A question somewhat analogous is the excess profits tax. On principle there is everything to be said in its favor. We have to raise an extraordinary war revenue, and those who are fortunate enough to make extra profits should therefore contribute largely. But the idea has no favor, for example, among German financiers, and we may sometimes learn even from our enemies. It is also contended by many in this country that if the principle is carried too far, and British industry is mulcted of practically all its excess profits, it will, after the war, stand greatly handicapped in comparison with foreign firms who have been permitted to accumulate large reserves, and are thus in a position to launch out into new fields of enterprise, which may be barred to the British merchant for want of the necessary capital. We are not intending to raise an argument against the excess profits tax, but merely wish to point out that, if temporary advantages are often very obvious from emergency legislation, counterbalancing disadvantages occur later on.

"The timber trade has been thinking hard this week, not only

on the immediate duties before it in complying with the regulations and making the best of present circumstances, but also on the future prospects. As regards the present, the only course to pursue is for those firms who hold less than 250 standards to dispose quietly of the goods as occasion offers, and to hope that before long some light may be thrown on the international situation, and that the end of the war may be more clearly in sight.

"On this subject of the length of the war, speculation can never be set at rest. It is noticeable, however, that as month succeeds month and fresh nations are continually drawn into the vortex, a greater and greater uncertainty prevails. The pace, however, seems almost too hot to last, and if we in England are being subjected to some inconvenience, we can rely upon it that the case is infinitely worse for the enemy, shut off as he is from nearly all sources of foreign supply. Right up to the end, we shall probably find the enemy adopting the same bold and defiant tone, but the crash will come, perhaps, very suddenly indeed. America's preparations for a long struggle —some say four years—is in a sense very depressing; but she evidently intends to profit by any errors of calculation on our part, and, if she makes a mistake, to make it on the right side. We in this country at first prepared for a war which might end at any time with the first year, and steadily refrained from looking too far ahead until we had been taught many hard lessons. America is not acting in this way; she is taking a very long view, and she may be just as wrong as we were, only in an opposite direction. Timber importers, therefore, should, although they cannot do any business just now, keep in as close touch as possible with the foreign exporting countries, and be ready at any time to take up the threads of their business."

Forest Fires Again Developing

People living in the older settled parts of Ontario have considered that the spring of the present year was wetter than the average spring, and naturally have given little thought to the situation in the northern part of the province where forest fires are so great a cause of danger each summer. Reports from the north country, however, indicate that the spring in that part of Ontario has been remarkably dry. Many sections have not had any rain fall since the disappearance of the snow, and recently, reports of forest fires have commenced to come in, so that the fire season of 1917 has apparently made an early and a rather extensive start. Everyone is reminded of the great loss of property and life that resulted last year in the Matheson district from fires which got far beyond control. Since that time the Ontario Government has adopted measures which it is hoped will make the recurrence of such conflagrations impossible, but the development of fires of considerable proportions early in June should serve to put everyone on his guard and to awaken a greater spirit of co-operation than has ever been developed previously, among those who are in a position to assist in preventing the spread of forest fires. We have often dwelt on this subject in the Canada Lumberman, but feel that it is a duty to impress upon our readers again the great responsibility which many of them have in this connection.

The Ontario Government is making a vigorous effort this year to put into effect the most modern methods of fire prevention and fire fighting in the northern parts of the province. A competent staff is being placed in the field and their equipment and facilities are such as have been proved in other parts of Canada to be the most effective. Four large motor vehicles with fire fighting apparatus have been stationed at Cochrane, Matheson, New Liskeard and Englehart, and the chief rangers have been given large staffs of experienced men. The organization of the staff is more complete than it has ever been in previous years.

The new efforts of the Ontario Government to prevent forest fires in the north may have a severe test this year. The reports already received indicate that this is a possibility. It is not reasonable to expect that, with only a few months' preparation, a perfect force can have been created, and it is possible that with adverse conditions serious fires may occur, yet the fact that so much has been done to systematize the work and to render it more effective gives encouragement and hope that this year there will be no serious loss either to property or to life, and that with the experience of the 1917 season to guide them, the forest fire prevention staff will subsequently be able to cope with almost any situation that can develop. There is good reason, if we are fortunate during 1917, to expect that we will then have witnessed the commencement of a new era in the history of Northern Ontario, from a forest fire point of view.

The commendable efforts of the Ontario Government to prevent forest fires must be backed up by the people who inhabit the north country.. Without such co-operation the Government's efforts are likely to be of little avail. Those whose work or pleasure takes them into the woods, and those who live in towns and villages or upon farms adjacent to the timbered areas, can do more almost than the Government to prevent forest fire loss. The settler, the camper, the lumberjack, the railway construction employee, the miner, and all others who live in the woods, must take every precaution against fire, put out their camp fires invariably, throw away no live matches, cigars, cigarettes or pipe tobacco, and extinguish everything in the way of fire that they may come across in their travels. There is only one way of preventing fire in the timbered areas of the north and that is for everyone to consider that he has a moral duty to extinguish fire whenever he comes across it and to avoid setting out fire unless he is certain that he will be able to extinguish it when it has served his purpose.

Reports which have been received already, tell of extensive forest fires in the organized and unorganized districts around Fort William and Port Arthur, which have destroyed large quantities of timber and uncut pulpwood. Bush fires, it is reported, were burning in over 100 sections west of Fort William during the last week in May. Severe fires are also reported from the State of Minnesota. It is to be expected that rain will come in the north in time to remove the present danger, but nevertheless the situation is not of much peril and makes it necessary that everyone should take all conceivable precautions in order that the record this year may not be one of disaster.

English Retailers Form Strong Association

If any proof were needed of the wisdom and importance of forming retail lumbermen's associations, in addition to the proofs which we have already obtained from the large associations operating in the United States and Western Canada, it could be had from a study of the course of recent events in connection with the retail trade in Great Britain. We have been accustomed to some extent to think of the United States as the home of association work and to consider that the merchants and manufacturers of England, and those even of Canada, are deficient in their appreciation of the advantages of co-operation. What England has been since the commencement of the war, in the way of organizing for the defence of the nation, proves fully that such an idea was not justified, The action recently taken by the retail timber merchants indicates, in a small measure also, that the Englishman, once he is persuaded of the necessity of a certain course of action, is as ready to adopt it as anyone else.

The retail timber merchants of Great Britain came face to face recently with a state of affairs which threatened to put them out of business. The Government, in pursuance of its policy of controlling the timber trade so as to enable it to secure all the stocks of timber it requires for the defence of the nation, commandeered practically all stocks in Great Britain, and so restricted the trade in timber of all kinds that the retailer found himself no longer able to make ends meet. What with the necessity for obtaining permits to sell and permits to buy, together with restrictions of the amount he was

allowed to sell within the limits of one per cent. of the stocks on hand on April 1, there seemed nothing left for the retailer to do, but to close his doors and go out of business.

Under such circumstances there were just two courses of action possible. One was that of unquestioning submission, and the other was co-operation in order to ascertain if there might not be a way out of the difficulty. The latter course was adopted. Some of the leading retailers conceived the plan of forming an association and called a meeting to discuss the suggestion. This meeting was held on May 1 and the upshot of it was that a resolution was carried in favor of forming an association, and a committee was appointed to work out the details. The committee lost no time in attending to its duties and made arrangements under which the retailers have now been formed into a section of the Timber Trade Federation, a body which has for many years been doing splendid work in the interest of its members. By joining the Federation all delay in getting to work has been avoided. In fact, almost before some of the prospective members knew that the plans had been completed, their committee had secured valuable practical results that should act as a sufficient incentive to bring in all available retail timber dealers as members of the new association.

This committee waited on the Director of Timber Supplies and laid before him a statement of the situation in which the retail timber dealers found themselves as a result of the government restriction on the sale of timber. The representations made at this meeting were subsequently presented in writing to the Director of Timber Supplies and proposed alterations were suggested which would relieve the retail timber merchants to some extent, at the same time leaving with the Director as full control as the interests of the nation require. Although these suggestions were not put into effect by the Director, relief was granted in another form which is highly acceptable to the retailers. On May 12th the Director informed the retailers that they would be allowed to sell, without a permit, small parcels of wood, each not to exceed twenty shillings in value, over and above the one per cent. on the stocks in hand on April 1st. "Parcels not exceeding these values may in fact be sold outside of the rules," the Director says. "It is hoped," the Director adds, "that this concession will go some way towards moderating the hardships which result from the permit rules." Needless to say, the retailers are greatly relieved by the concession in their favor and consider it as a convincing illustration of the value of getting together and co-operating in matters of mutual concern.

By joining the retail section of the Timber Trade Federation, retailers will be obtaining many valuable benefits, including the insurance and workmen's compensation schemes conducted by the Federation, by means of which reduced rates are obtainable. They will also be entitled to assistance in legal and other questions affecting the timber trade generally. The annual subscription is so small that it will not stand in the way of any retailer becoming a member. It amounts to £1 1s annually, which covers the ordinary services of the section and the Federation.

Retail lumbermen in Ontario, and elsewhere in eastern Canada, have now plenty of examples to direct them along the right road and surely they will soon see the wisdom of doing something definite along the lines which we have urged so strongly. There never was a time when they could take initial steps with more promise of success, or with less interference to themselves personally in connection with the conduct of their business affairs, for, to-day, most of them have sufficient time to spare to devote to the organization work, and they will be able to get their associations into good running order so that when business again becomes normal they will already be reaping the benefits.

Wholesalers, Jobbers and Scalpers

Every now and then lumbermen who have sufficient spare time to have a discussion thresh out among themselves the old problem of the usefulness of the wholesaler. Probably there is not much difference of opinion on this subject among the majority of the trade, but sometimes it gives rise to rather bitter assertions that were better left unmade. For this reason it seems useful to reproduce an excellent consideration of the matter by Mr. E. A. Thornton, delivered before the Lumbermen's Association of Chicago. Mr. Thornton said:

The subject of this short paper has a place in our particular industry—legal, and hence legitimate—economic, and hence necessary. It cannot be treated as entirely separate from the yard or retail branch, nor from the mill or manufacturing branch of the industry. It is a mixed proposition, and presents some of the difficulties of unscrambling the egg. There are many large lumber manufacturers who sell practically their entire production through the wholesale lumber dealer; on the other hand, there are certain large mill or manufacturing enterprises whose officers declare that prices and trade conditions would both be better if the wholesaler were eliminated—two widely divergent practices. That the viewpoint of the latter is warped and selfish goes without saying.

Among the abuses may be mentioned the acceptance by a wholesaler of an order mixed in character from a general or carpenter contractor where it is known the material will be used by him in construction of a dwelling or apartment house, whether requiring team delivery or not. The apartment and dwelling house is mentioned as typical, and is not intended to fully cover the type. This relatively small bad practice is chiefly resented by the retail yard dealers, who contend properly, we think, that such apartment and dwelling house requirements are strictly retail.

I have mentioned a conceded abuse; I will now mention an objection to the wholesaler by some manufacturers who call him a parasite, which as such should be abolished. But why should an element that tends to stabilize and maintain values be termed a parasite? Simply because his function is misunderstood. The wholesaler distinctly aids in the economical distribution of lumber. To illustrate: The United States Government report shows a list of about 45,000 individuals, firms, and corporations, manufacturing lumber in some form. Out of this large number less than 900 manufacture ten million feet or more annually. It may, therefore, readily be seen that many thousands of the smaller manufacturers cannot afford an efficient sales organization, and at this point the wholesaler is sought, through whom the small manufacturer may economically dispose of his product and realize the maximum value for it. A species of this maligned genus appears, and a deal is made whereby the wholesaler becomes the medium of distribution for a nominal consideration, say, a dollar a thousand, or a fixed percentage of mill values, paying spot cash when material is shipped, and not infrequently becoming the banker of the small manufacturer in making advances of cash as lumber is put in pile, etc. This function of the wholesaler is likewise extended to the retail dealer in small communities. He knows the retail dealer's necessities, understands intimately his financial condition, and is a friend and, in a sense, a partner of the retail dealer. Yet some of the largest manufacturing and retail industries have asserted that the wholesaler should be abolished. They do not differentiate between the good and the bad, the financially rsponsible and the fly-by-night wholesaler. In practically all staple articles produced or manufactured the wholesaler or jobber is a recognized cog in the business of distribution. Some of the strongest advocates of "putting the wholesaler out of business" are they who own retail yards in one or more cities, who control one or more mills, and who also merchandise more lumber by direct shipment from mills (not their own) to consumer than any but the largest of the wholesalers. Enough influence has been employed to impose terms of payment differing from the regular terms so that the wholesaler may be defined as one who buys for cash and sells on time. The cash capital required is about equal to the average monthly volume of business done, where none of the capital goes into mill or timber investment.

I believe the time is coming when the best of the manufacturers will quote and sell the reputable wholesalers on terms permitting a profitable overturn and with benefit to all.

Annual Report of B. C. Forest Branch

Active Development of Eastern Market Bringing Results—Decreases in Important Export Markets

The annual report of the Forest Branch of the Department of Lands of British Columbia, prepared by Mr. M. A. Grainger, chief forester, and covering the year ending December 31st, 1916, has just been issued. The report opens with an extensive consideration of the market for British Columbia forest products in Eastern Canada, the development of which has been probably the most important feature in connection with the industry during the past year. It is noted that the B. C. Lumber Commissioner, Mr. L. B. Beale, who opened an office in the Excelsior Life Building, Toronto, has been exceedingly active during the year and has been able to create a much greater interest in the forest products of British Columbia than formerly existed. "In attacking a comparatively new market," the report says, "it was quickly realized that the main effort should be directed to eastern architects, engineers, and users of wood, rather than to the lumber trade. The retail lumber trade in the east had strong connections with the southern pine manufacturers, developed through a number of years of steadily increasing trade. As against this there was the fact that it pays any retailer of lumber to carry the particular material most in demand. The immediate object was therefore to create a demand which would compel firms in the east of Canada to carry stocks of British Columbia lumber. The ultimate object was to educate the engineering professions and the consumers of wood to the qualities and uses of British Columbia wood, which they hitherto hardly knew was in existence."

Discussing the year's work of the lumber commissioner at Toronto, the report says in part:—"After being shown facts and figures proving the qualities and records of British Columbia wood, architects and engineers were, generally speaking, ready to substitute Douglas fir for southern pine, the only great difficulty in the way being that of quick delivery. Many specifications were referred to our Commissioner for his criticism, and many were changed in order that British Columbia timber should give better satisfaction. This part of the work has been slowly developing into a sort of consulting business. Large concerns about to erect new buildings invite the Commissioner to discuss with their architects and engineers the best methods of construction, the most economical sizes for specifications, and other engineering points in connection with lumber."

Attention is drawn to the fact that formerly many city by-laws gave a preference to southern pine, Toronto, for instance, allowing a fibre stress for Douglas fir of only 1,200 lbs. to the square inch, as against 1,600 lbs. for southern pine, thus giving the latter a preference of 25 per cent. After repeated and persistent endeavors on the part of the Lumber Commissioner, Toronto now admits Douglas fir and southern pine on an even basis. This is considered to be of particular importance, because in Ontario the standard for Toronto is usually followed by other cities and municipalities.

After discussing in considerable detail the various publicity measures adopted by the Forest Branch in Eastern Canada, the report says:—"Such publicity would, of course, be valueless if it were not followed up energetically by the mills of this province. The fact that shipments to the east have doubled during the past year is concrete evidence of the fact that British Columbia lumbermen are paying marked attention to the eastern market. It is to be confidently expected that British Columbia's trade in lumber with Eastern Canada will continue to increase at a rapid rate. The market there is large and steady and will help to stabilize our British Columbia industry."

The work of the Forest Branch in connection with the prairie provinces' market was chiefly devoted towards increasing the use of wood on the farm by the publication of a series of building pamphlets, issued in co-operation with the prairie agricultural authorities. These were distributed to the number of 202,000.

Off-Shore Markets

Referring to the off-shore markets for British Columbia forest products, the report states that the year's work was necessarily confined to preparing the way for future business, the tonnage situation interfering greatly with the oversea trade. War office business had been limited almost entirely to boxes. During 1916, 875,000 boxes were shipped, and there was now an additional order for 500,000, with prospects for a further 500,000 order being placed immediately.

The reduction in shipments of lumber during 1916 on account of the enormous demand for tonnage for other purposes is shown by the following table, which gives the quantity and destination of shipments made in 1915 and 1916:—

Water-borne Export of Lumber from British Columbia

	1915 Feet	1916 Feet
Australia	5,913,020	2,152,657
New Zealand	640,577	286,421
West Coast of South America	301,449	627,418
China	3,425,953	3,055,045
Japan	1,583,437	3,042,690
South Sea Islands	1,395,058	991,308
United Kingdom and Continent	38,112,299	19,801,629
Africa	5,329,042	10,114,885
Alaska	.....	3,564,654
Russia	.....	39,816
California	1,373,938	.....
Totals	58,074,773	43,676,523

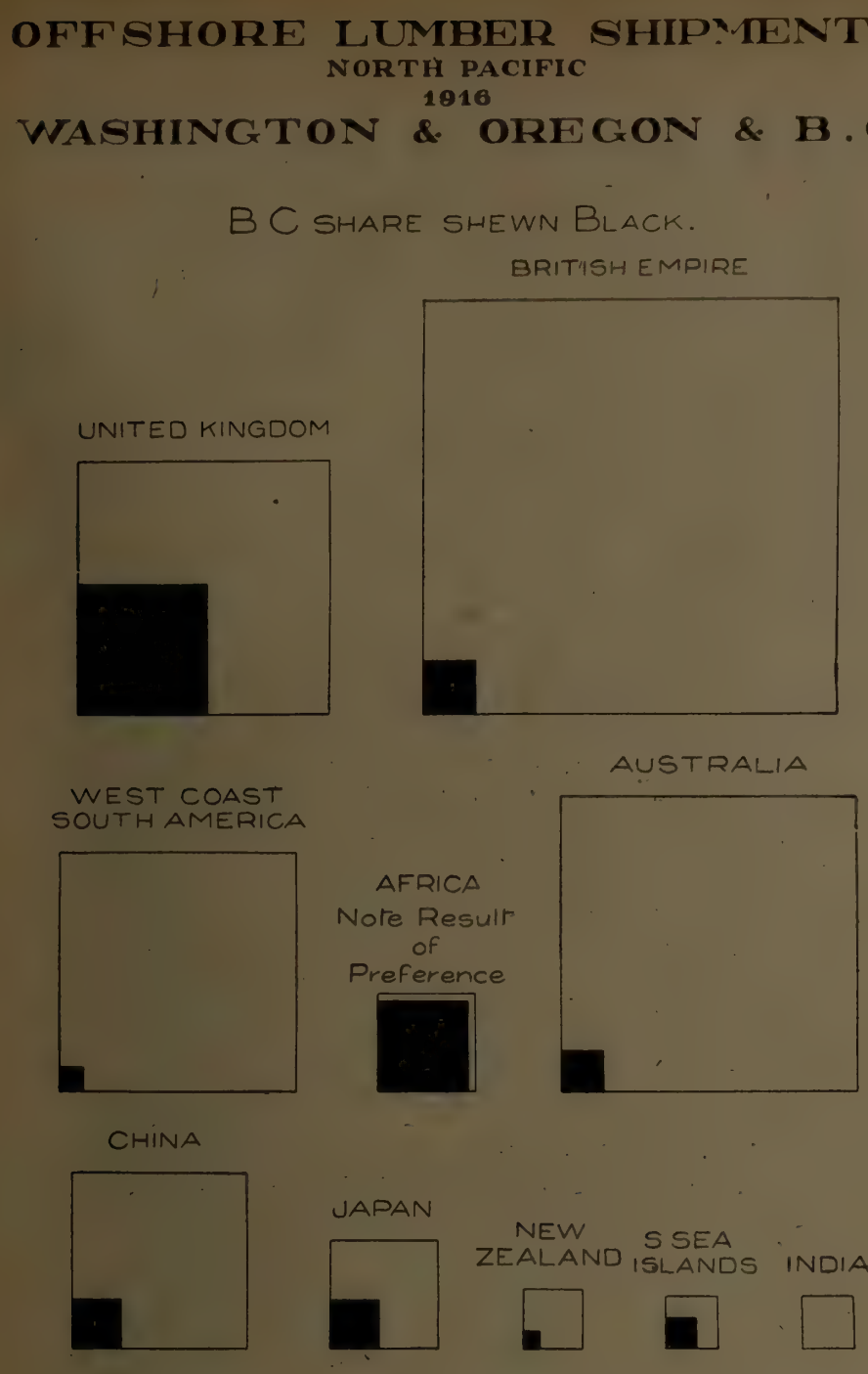
Discussing the export trade as shown in the above table the report says:—"It will be noticed that the shipment to the United Kingdom and Continent was only half in 1916 of the figures for 1915. This is to a large degree explained by the scarcity of tonnage, which forced the securing of lumber requirements of the entente allies from a source of supply nearer at home. This does not, however, satisfactorily explain the continued purchases made on the Pacific Coast of the United States. Another notable feature is the large increase in the South African shipments. This represents 88 per cent. of the total import from the North Pacific, only 12 per cent. being supplied by the United States. This may be directly attributed to the preference which South Africa gives to Canadian timber.

On the other hand, the shipments to Australia were greatly reduced, and only amounted to 2 per cent. of the North Pacific export to Australia, the balance of 98 per cent. being supplied by the United States. Even in the last normal year, 1913, British Columbia only supplied 5 per cent., as against 95 per cent. from the United States. When it is remembered that Australia normally takes over 75 per cent. of the total export of lumber from the North Pacific, the importance and value of this market becomes apparent.

Analysing further the year's off-shore shipments and comparing our shipments to various markets with those of our competitors—Washington and Oregon—we find that we have done only a very small part of the off-shore business. The diagram will show at a glance our position, the black portion in every case representing British Columbia's share.

Placed as she is, British Columbia should do a large export trade. But for this she must develop markets which will take the low grades which are always produced when high grade is sawn. China, Japan, the West Coast of South Amercia, and India present the best possibilities from a low-grade standpoint. British Columbia has a large and important market in Canada, but she cannot allow the lumber trade of the Pacific to remain a monopoly of the Pacific States. Nothing is more needed in the lumber industry to-day than the stabilizing influence of widespread and varied markets. With these, crop-failures on the prairie could never again have such distressing effects on British Columbia. Lumbermen, stumpage-owners, and loggers have learned from the experiences of the last three years that before the lumber industry can be put on a sound footing ready to withstand further waves of depression adequate markets must be secured and held."

The accompanying diagrams show where the natural oversea markets for British Columbia lumber lie, and the way they can be effectively secured and held. The report says:—"Before 1904 British Columbia had about 30 per cent. of the South African lumber business. A preference was given Canadian lumber, and within two years British Columbia was supplying half South Africa's lumber requirements, and it has steadily grown until this year British Columbia supplied 88 per cent. If this preference were made general between all parts of the British Empire the future of British Columbia's timber industry would be assured. Australia has repeatedly stated her willingness to conclude a reciprocal arrangement with Canada covering raw products, such as lumber, pulp, fish and fruit. Canada has already granted a preference to New Zealand's raw products, which are the same as Australia's. Canada now imports all of the pastoral products she requires from New Zealand, and the extending of the same preference to Australia would merely draw these products from two sources instead of one. Such an arrangement would be of mutual



benefit and directly in line with the sentiment existing in both countries favoring inter-imperial trade.

"Lumber shipped to overseas markets should be plainly marked to show Canadian origin, and this would be equivalent to a preferential tariff in every Empire market. Under present conditions the foreign buyer cannot possibly separate Douglas fir coming from Washington from that coming from British Columbia. If our marked British Columbia lumber could be picked out in any yard or when delivered to any building, whether it be in London, England, Cape Town, Sydney, Auckland, or Calcutta, it would have an immediate effect on the demand for British Columbia lumber."

Output Slightly Decreased

The final figures of British Columbia production during 1915 show a total of 991,780,200 feet B.M. of forest products, including lumber, shingles, poles, piles, ties, posts and mining props. This was a slight falling off as compared with 1914, when the total was 1,151,903,000 feet B.M.

The following table shows the value of the various forest products during 1913, 1914, 1915 and 1916, including any transportation charges within the province.

	1913.	1914.	1915.	1916
Lumber, Coast	$20,400,000*	$15,500,000*	$15,500,000	$21,075,000
Lumber, Interior	6,400,000	3,750,000		
Pulp	3,000,000	2,730,000	3,200,000	3,520,000
Shingles	550,000†	650,000†	3,500,000	4,500,000
Boxes			750,000	1,833,000
Piles and poles	400,000	900,000	1,200,000	650,000
Mining-props and posts	250,000	300,000	400,000	1,000,000
Miscellaneous (cut by railroads, mines, settlers, cordwood, etc.)	1,000,000	1,200,000	900,000	1,150,000
Additional value contributed by industries, etc	1,000,000	1,900,000	1,750,000	1,650,000
Product of Dominion lands	450,000	1,000,000	1,800,000	‡
Lath	200,000	150,000	150,000	150,000
Totals	$33,650,000	$28,680,000	$29,150,000	$35,528,000

* Includes shingles cut from logs. † Includes shingles cut from bolts only. ‡ Included in other items.

Referring to the statistics the report says:—"It will be noticed that the increase of 1916 over 1913 is mainly attributable to an increased production of shingles and boxes. The manufacture of boxes was given an impetus by the placing of contracts in British Columbia by the British War Office. On the other hand, the two excellent crops of the prairies of 1915 and 1916 created a good demand for lumber and shingles which increased production and bettered prices. This is to a large extent the cause of the increase in value over 1915 of over $6,000,000."

In regard to the quantity of timber scaled in the province during 1916 it is reported that the total, namely, 1,280,000,000 feet B.M., is more than 25 per cent. greater than the 1915 total, and that most of this gain took place during the last six months of the year.

The quantity of timber sold by the province during 1916 also showed a marked increase, and brought an estimated revenue of nearly $260,000 to the province, as compared with $152,000 for 1915. This increase is partly explained by the increase of 16c per thousand feet obtained over the average price of 80c per thousand feet for 1915, but is mostly due to the greater quantity of timber sold, the total having been 136,354,000 feet B.M. of saw-timber, which is nearly a fifty per cent. increase over the quantity sold in 1915. The war demand for spruce is shown by the fact that in 1916 the sales were nearly three times as large as during 1915. The average prices per thousand feet obtained on the timber sales during the year were as follows:—"Douglas fir, $1; cedar, $1.16; spruce, 72c; hemlock, 45c; balsam fir, 39c; white pine, $1.69; western soft pine, $1.74; tamarack, $1.75; other species, $1.95. Total average, 96 cents.

Although a large number of mills were shut down during 1916, the average sawing capacity of the province was not perceptably changed, as a number of new mills were built and the capacity of others was increased. The report expresses the belief that with a good lumber market in 1917 much of the sawing capacity now idle will commence to operate. The report states that there are now 150 mills east of the Cascades and 240 mills west of the Cascades.

"The number of logging operations in the province increased from 957 in 1915 to 1,144 in 1916. The largest single increase is the jump in the Prince Rupert District from 85 hand-logger operations in 1915 to 200 in 1916. This is directly attributable to the commencing of pulp operations by two companies in the north."

Pulp and Paper Industry Active

"Much activity has been evident during the whole year in the pulp and paper industry," the report says. "The rise in price due to the war has had the result of directing attention to Canada's pulp resources as never before. Eastern Canada has not received all this attention, for British Columbia's pulp resources are beginning to be realized. The plants in operation in the province have run continuously throughout the year, the output for 1916 being as follows:—

Paper manufactured	65,229 tons
Sulphite wood-pulp	14,389 tons

"Commencement was made on new operations by three companies—one at Swanson Bay, which started operations early in 1917; another at Ocean Falls, where a large amount of development work had already been done, and which will commence producing paper some time in 1917; and the third at Quatsino Sound, where building operations have been in progress for some months and will likely continue during the coming year.

"These developments are all on the Coast, but there are large areas of pulp timber in the interior which have not yet been touched. The development of these areas will no doubt be undertaken in the not-far-distant future."

The export of logs from British Columbia during 1916 was only half as great as during 1915. This resulted from a better log market in British Columbia. The quantity exported ungraded dropped from 19,000,000 feet in 1915 to 2,000,000 feet in 1916. The complete totals of the three grades and ungraded were as follows:—1916, 52,184,385 feet; 1915, 106,874,935 feet.

The exports of poles, piles, posts, ties and wood during 1916 were valued at $488,776.

In 1915 the Forest Branch began to act as fiscal agents for the British War Office in connection with its lumber purchases in British Columbia. This was continued in 1916, the only orders being for munition boxes. These included 191 cars carrying 817,790 boxes, valued at $271,616.

During 1916 the fire damage in British Columbia forests was lower than in any year since 1913. The greatest loss, as usual, was in the Fort George and Hazelton districts, where the patrols are fewest and the fire hazard greatest. In these two districts the area burned over amounted to 135,000 acres, or 80 per cent. of the total burned over in the whole province. The quantity of timber burned in British Columbia during 1916 was 50,415,000 feet B.M., and the loss amounted to $48,913. In 1915 the total was 187,909,000 feet B.M., valued at $108,873.

Canada to Build Wooden Cargo Vessels

Imperial Munitions Board Issues Specifications for Standard Steamers of 2,500 Tons—Approximately 1,500,000 Feet of Timber Required per Vessel

The shipbuilding programme in Canada is becoming of such extensive proportions as to be of great importance to the lumber-producing industry. The chief factor in the situation is the production of wooden vessels, under the management of the Imperial Munitions Board, who have undertaken to look after the production of vessels in Canada for the British Government. The plan is to construct as many vessels as possible, which will be employed in the general cargo carrying business, so as to assist in offsetting the activities of the German submarines.

The Imperial Munitions Board have decided upon a standard wooden vessel, which will require about 1,500,000 feet of lumber for its construction. The accompanying illustrations show the general arrangement and the midship section of the standard vessel. Its dimensions are as follows:

	Ft.-In.
Length B. P.	250.0
Breadth, extreme	43.6
Breadth, moulded	42.6
Depth, moulded	25.0
Depth, over keel	27.0
Draft for displacement	22.0
Draft over keel	21.0

Deadweight on 20 ft. maximum.
Draft to Lloyds summer freeboard, 2,500 tons approx.
Deadweight on 21 ft. maximum draft, 2,800 tons approx.

The vessel is to be of 2,500 tons D.W. The details of hull construction, fastening, etc., are to meet in general with the approval of Lloyds and of the board's technical advisers. The vessels are to be built to Lloyds requirements for A1 classification, and to the requirements of the British Board of Trade as far as necessary for a cargo steamer. The machinery is to be of the single screw, triple type or geared turbines of .590 I.H.P., with two water tube boilers of Howden type.

The outline specifications issued by the Imperial Munitions Board include the following:

Materials.—All lumber used in construction to be British Columbia, generally known as Douglas Fir, unless otherwise specified, but in case of yards in Eastern and Maritime Provinces the lumber may be such as can be obtained readily, and is to be approved by the board, each builder submitting for such approval a schedule of lumber proposed to be used.

All lumber to be clear of shakes and other faults, and, as far as possible, free from sap and stain.

Lumber to be subject to inspection of board's representatives.

Keel.—Keel to be sided 24 in., moulded 20 in., and to be two pieces in length, with 16 ft. scarph. Scarphs to have hardwood key 2 in. x 5 in., the nibs of the scarphs being 4 in. deep. Scarphs to be fastened with 1 in. galvanized bolts, one at the centre of frame and one halfway between the frame centres, driven through and clinched, with large head on one side. Ends of scarphs to be spiked, with three 10 in. spikes at each end; the bolts in the bottom keel to be set in 1 in. and clinch rings to be set in the same distance and cemented before the shoe is put on.

Keelsons.—Main backbone of ship to consist of combination steel and wooden structure formed as follows:

Main centre keelson, consisting of one log 24 in. x 20 in., and two assistant keelsons, laid side by side, on top of which a vertical box girder is to be laid 2 ft. high by 12 in. wide, the foundation plate being 3 ft. 3 in. wide by ¾ in. thick. The rider plate 25 in. x ¾ in., and the vertical plates 2 ft. x ¾ in. The top and bottom bars to be 6 x 6 x 8/16.

The steel keelson and the main keelsons to be bolted through keel by galvanized bolts 1¼ in. diameter, which are to be fitted with nuts and washer plates clinched over, the lower ends of bolts to be let sufficiently into the keel to allow for cement stopping.

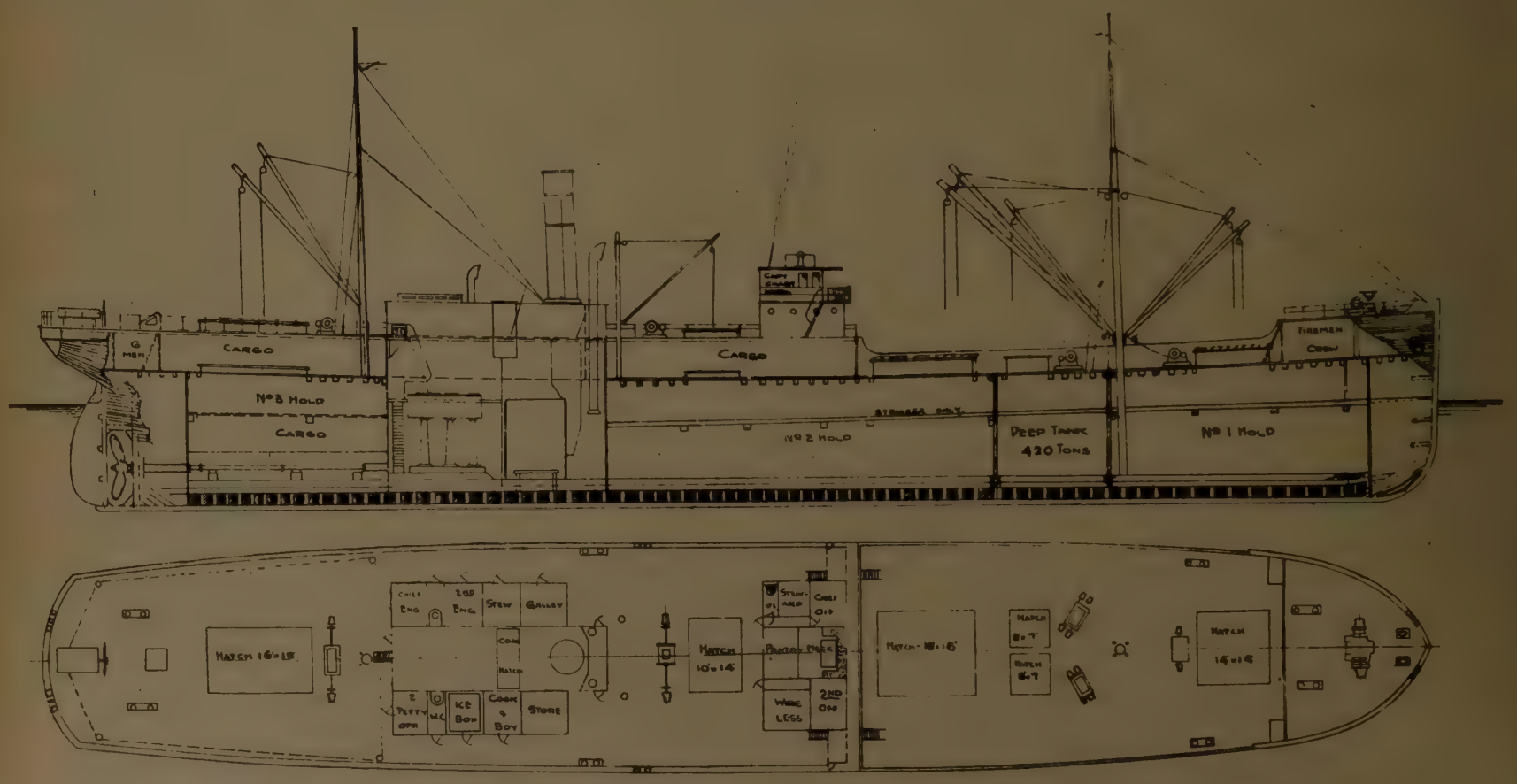
Scarphs of keelson logs to be not less than 15 ft. long, and each course to be not more than three pieces in length, the scarphs being arranged with a view to maximum strength.

The whole structure to be in accordance with the midship section, and the fastenings to be to an arrangement approved by Lloyds and the representatives of the board.

Owing to the danger of corrosion arising in the steel work specified these keelson logs are not to be of oak, except with the special permission of the board.

Assistant keelsons to be through fastened with 1¼ in. iron, two bolts in each frame, all driven from the outside and let in flush on the top.

The keelsons and assistant keelson must be edge bolted, with 1¼



Diagrams illustrating general arrangement of 2500 ton wooden steamer, many of which are to be built in Canada for the Imperial Munitions Board.

iron, a bolt in every alternate frame space, and the scarphs to have two extra bolts in each frame space.

Stem.—The stem to side 18 in. and mould 26 in., bottom end to widen so as to conform to the curve of the forefoot, rabbet to be 3½ ft. deep. Stem to connect to keel with a natural crook knee, 18 in. sided, arms of knees to stem and keel not to be less than 6 ft., with a lock scarph on keel of 2 in., after nib of knee to come below rabbet not less than 2 in., to make good caulking; the scarph on stem to jog outside of rabbet about 2 in. at point where the joint crosses the inside of rabbet. The after-nib of knee on keel to start where the top of keel crosses the inside of rabbet or further aft.

Apron.—To side 24 in. x 28 in., to extend down over knee as far as possible.

Propeller and Stern Posts.—Propeller post to be 30 in. moulded, the sides to be sufficient to allow 8 in. of wood outside shaft tube, and long enough to reach to top of poop deck beams, as shown in detail drawing which will be submitted, and to be secured by knees on keel and keelsons as per plan, the knees to side in conformity with the keel and post natural crooks, root to be not less than 5 ft. long, body of knee to rest on keel and keelson roots against post; the rudder post to be 24 in. square, tenoned into keel, backpiece 24 in. x 18 in, secured to keel and top ends with knees as per plan; the rabbet of stern post to be 22 in. from after-side of post and 3½ in. deep; backpiece to be grooved and tongued to post, ¾ in. tongue.

Shaft Logs.—To be at least 36 in. square by about 11 ft. long, of sound timber, for the housing of 21 in. diameter stern tube, secured by through bolts with washer plates and nuts, as approved, to keel and keelson, and bored for the reception of stern tubes. The end of log to project through the after-bulkhead, which is to be caulked around it.

Frames.—To side 12 in., spaced 36 in., frames in two thicknesses, 24 in. deep; double floors; to mould at side of keel 24 in., at first futtock head bilge 16 in., at gunwale 11 in. at poop deck 8 in.; stanchions to be on the same side of frame on each side; also to be clear of heart, sap, and knots, and to be moulded with heart side outward; double frames to extend to top of forecastle and poop deck beams.

Deadwoods.—To be 24 in., sided and built up high enough to come about 3 in. above face of ceiling.

Counter Timbers.—To side 12 in., to mould at heel to suit moulding size of transom, and carry that size to knuckle where it will mould 12 in. fore and aft, to mould 8 in. at the deck.

Transom.—To side 14 in. to mould same size as frame; a timber 12 in. sided to go on forward side of transom, and a natural crook knee to be used for stanchion on each side, not less than 12 in. sided.

Ceiling.—At flat of floor to be 10 in. thick; the thick bilge ceiling to be 14 in. x 14 in.; the upper strakes 10 in. x 12 in.; the remainder under main deck to be 8 in. x 12 in.; the clamps to be as shown on midship section. The ceiling in long poop and forecastle to be 6 in. thick. Thick ceiling to be scarphed; scarphs about 6 ft. long. The edges of thick ceiling to be beveled to fit through.

Beams.—Main deck beams to be spaced 36 in. scantlings, as shown on midship section. All the hatch beams to be 14 in. sided and 14 in. moulded, and along midships round of beam to be 9 in.; all other beams to be as shown on section, with 1½ in. jog top and bottom. Beams in way of deep tank bulkheads to side 14 in.; lower deck beams to be spaced as shown on plan, viz., one at each side of each bulkhead and one at each hatch end to side 14 in.

Deep Tank.—To be formed in forward hold where shown in general arrangement. Bulkheads to be formed of double courses of 4 in. lumber, having painted canvas laid and ironed between courses.

Transverse bulkheads to be diagonally planked. Centre line bulkhead to be fitted 8 in. timbers, edge bolted and with lightening holes.

Hold Stanchions.—There is to be a stanchion on centre line under every beam, tenoned with a 3 in. tenon, and of the same width as beams under which it goes.

Carlins.—At each side of hatchway to side 14 in., moulded to suit beams.

Hold Beams.—To be fitted as per plan, siding and moulding 14 in.

Hatch Sills.—Size of sills to be 14 in. x 14 in. x 30 in. high, fastened in same ratio as other work

Mast Partners.—To be 10 in. thick, 10 ft. long, fitted in solid between beams.

Poop, Bridge, and Forecastle Deck Beams.—To be spaced 3 ft.; beams to mould 12 in. and side 12 in.; at hatch end to side 14 in. and mould 12 in.; to land on top of chock within 3 in. of outside surface; beams in poop and forecastle deck to be landed on shelves, as shown in midship section.

Waterways and Chocks Between Stanchions.—The waterway to be formed of 12 in. x 12 in. and 11 in. x 10 in. planks, to extend clear aft if possible; after ends may be reduced thwartships; the scarphs to be about 10 ft. long; timbers to be in long lengths and scarphs arranged so as to give the maximum possible strength.

Decking.—The main deck to be 4 in. x 4 in. net, vertical grain; poop and forecastle decks to be 4 in. x 3 in.; all decking to be well seasoned.

Outboard Planking.—First garboard strake 14 in. x 10 in., with scarphs about 5 ft. long; second garboard strake 14 ft. x 9 in.; third garboard strake 14 in. x 8 in.; the outside corners of these strakes to be rounded; remaining bottom strakes to be 12 in. x 6 in.; bilge strakes 10 in. x 6 in.; wales and topsides 8 in. x 6 in.; rubbing strake 8 in. x 8 in., faced with 3 in. x 3 in. iron bark. Sheer strake to face level with waterways. Wash strake to be 8 in. x 6 in., with scuppers cut. All planks to be squared flush, and no projection below top of wash strake.

Stern Planking.—To be 4 in. x 6 in.

Bulwarks.—To be 4 in. planking, as shown in section. Finished bulwarks to be beaded on top edge inside and out; lower strake to be beaded on lower corner inside and two upper corners; strake under rail to be scarphed with 5 in. scarphs, the lower edge of this strake and the top edge of wash strake to have bead worked on. Bulwark rail to be 18 in. x 6 in.

Bulkheads.—Bulkheads to be four in number, in addition to deep tank bulkheads, namely, collision bulkhead, aft peak bulkhead, and bulkheads at fore and aft ends of machinery space. To be formed of double sheeting 3 in. lumber, laid diagonally, and fitted between courses with painted canvas, caulked and made watertight, and efficiently secured with strong clamps.

Masts and Derricks.—Vessels to be fitted with two masts of wood of sufficient diameter to carry the load imposed by the double derricks fitted at each hatch; each derrick to lift five tons. Masts to be sufficiently long to permit the installation of wireless outfit. Two derrick posts, with four-ton derricks and gear, to be fitted at No. 3 hatch.

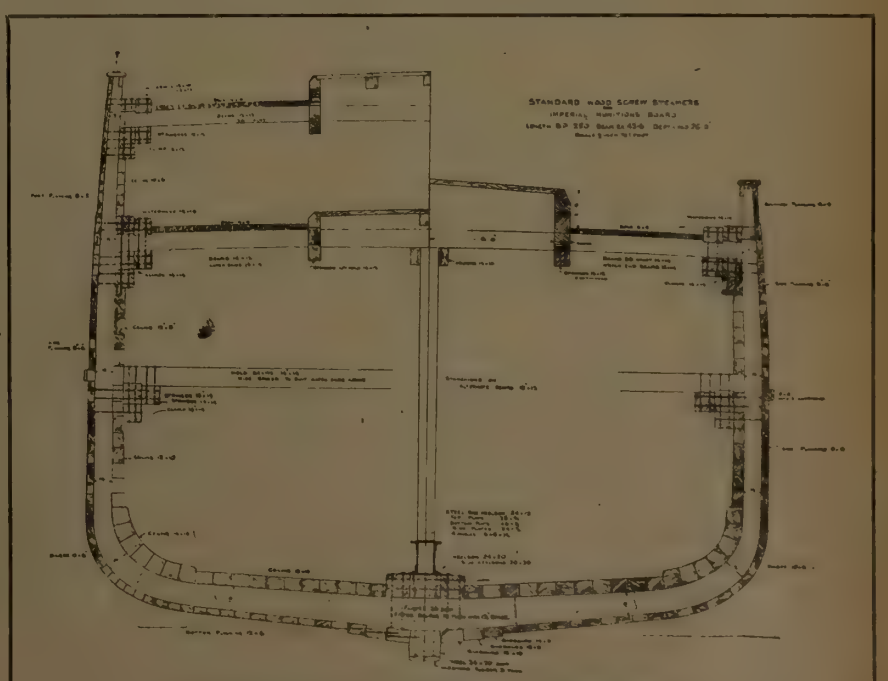
The builders are to deliver ships to the owners after trial, with all classification certificates complete. The trial is to consist of a six-hour sea run at full power, during which machinery must function to the satisfaction of the owners' representative. The builders must guarantee workmanship and material for six months after delivery. Complete specifications and working details can be obtained upon application to the Imperial Munitions Board.

France Desires to Build Her Own Dwellings

The annual review of the work of the Canadian Commercial Intelligence Service has recently been issued. The report contains a few matters of interest to lumbermen. In regard to the portable house industry and trade it states that six models of portable houses were sent to Paris about midsummer of last year and were set up in the Tuilleries Gardens, a short time after the opening of the Reconstruction Exhibition held there. Mr. Frank Pauze, of Montreal, a member of the Canadian Trade Commission which visited France, also had interviews with the lumber trade and furnished valuable information to several builders who made enquiries regarding portable houses. The six model houses were presented to the "Secours National," and are being utilized by the Canadian General Hospital No. 8 at St. Cloud.

It was ascertained, the report says, that the policy adopted by the French authorities would be that the construction of houses for the devastated regions should be undertaken as much as possible in France.

At the beginning of 1916 quotation lists of several lots of lumber were sent to France by an Ottawa firm, and one or two shipments were made with satisfactory results, but the increase in ocean freight rates prevented further business.



Midship section of 2500 ton wooden steamer.

Shipbuilding Discussed in Commons

Hon. J. D. Hazen Explains Operations of Munition Board in Production of Wooden Vessels for England

In the House of Commons on June 1, when the House was in supply to deal with matters pertaining to the Department of Marine and Fisheries, an interesting discussion took place in connection with the construction of steel and wooden vessels in Canada. In the course of the discussion Hon. J. D. Hazen made a number of interesting statements regarding the shipbuilding industry in Canada. Referring to the work of the Imperial Munitions Board, he explained that this board was not prepared to place contracts for wooden vessels of less than 2,500 tons each, because it had absolute instructions on that point from the British Government limiting the vessels to 2,500 tons. From information he had received from a well-posted gentleman in Nova Scotia, he stated that there were now 48 wooden vessels under construction in that province, which varied in size from 1,500 tons to 100 tons. These vessels could be built and operated at a very substantial profit, provided they escaped the submarines and mines.

The question of building ships in Canada for use after the war, to be owned by the Canadian Government, was a very important one. It would involve the expenditure of a very large sum of money, and at present, when such large sums were being raised for carrying on the war, the raising of additional millions would cause the Finance Minister a great deal of concern. This was a policy that could not be undertaken rashly, but would require the most careful consideration. If private individuals were willing to go into the building of ships of this sort, the government would not be justified, he thought, in entering into competition with them.

Discussing the number of vessels now under construction in Canada, Hon. Mr. Hazen referred to a number of cases. Four wooden ships of from 1,500 to 2,000 tons were being constructed on the Island of Orleans by a company in which Mr. Playfair was interested, who was known through his connection with shipping on the Great Lakes. He was informed that a large portion of the lumber entering into the construction of these ships was being brought from British Columbia. Further, he understood from a gentleman who was largely engaged in shipbuilding that arrangements were being made for bringing a large quantity of British Columbia lumber to points on the St. Lawrence, where he was going to construct some eight or ten wooden ships, probably of from 1,500 to 2,000 tons each. The ships on the Island of Orleans were already well under way towards completion and work had been commenced on two others. He thought this was a sufficient answer to the statement that there was great difficulty in getting lumber from British Columbia for use in shipbuilding in Eastern Canada. Not only was some of the lumber being brought from British Columbia, but he was informed that Mr. Norcross had made large purchases of lumber in that province, and intended to construct vessels of British Columbia lumber and lumber obtained elsewhere.

Many Small Vessels Building in the East

Subsequently Hon. Mr. Hazen presented the following list of wooden vessels under construction in March, 1917, on the Atlantic Coast:

	Schooners.	Gross tonnage.
J. W. Comeau, Comeauville, N.S.	1	329
Dr. McDonald, Meteghan, N.S.	1	544
John Deveau, Meteghan, N.S.	1	400
Innocent Comeau, Little Brook, N.S.	1	250
Omer Blinn, Grosses Coques, N.S.	1	350
Theriault Bros., Belliveau Cove, N.S.	1	350
J. N. Rafuse, Bridgewater, N.S.	3	755
Leary & Sons, Bridgewater, N.S.	2	265
Robar Brothers, Bridgewater, N.S.	1	130
William Naugler, Bridgewater, N.S.	1	300
W. R. & C. A. Huntley, Parrsboro, N.S.	1	490
Wagstaff & Hatfield, Port Greville, N.S.	1	400
G. M. Cochrane, Fox River, N.S.	3	1,349
James E. Pettis, Spencer's Island, N.S.	1	425
T. K. Bentley, Advocate Harbor, N.S.	1	449
Esther Harkinson Shipping Co., Belliveau Cove, N.S.	1	360
Peter McIntyre, St. John, N.B.	1	450
Southern Salvage Co., Liverpool, N.S.	2	530
J. Steadman Gardner, Liverpool, N.S.	1	340
W. K. McKean Co., Liverpool, N.S.	1	400
Albert Parsons, Walton, N.S.	1	400
George A. Cox, Shelburne, N.S.	1	200
W. C. McKay & Son, Shelburne, N.S.	4	620
Estate Joseph McGill, Shelburne, N.S.	1	160
J. Ernst & Son, Mahone Bay, N.S.	2	520
John McLean & Sons, Mahone Bay, N.S.	1	95
Smith & Rhuand, Lunenburg, N.S.	3	332
Lewis Hardwood Co., Lewiston, N.S.	2	1,000
John Brown, Public Landing, N.S. (tow barge)	1	50
E. F. Williams, Dartmouth, N.S.	1	350
Quebec Shipbuilding and Repairing Co., St. Laurent, Que.	2	2,000
Charles Griffin, Isaacs Harbor, N.S.	1	40
J. A. Balcom Co., Ltd., Margaretsville, N.S.	1	400
James X. Lenteigne, Lower Caraquet, N.B.	1	28
Meteghan Railway and Shipbuilding Co., Meteghan, N.S.	1	470
Shelburne Shipbuilders, Ltd., Shelburne, N.S.	1	350
Robert Rutledge, Sheet Harbor, N.S.	1	300
J. W. Raymond, Port Maitland, N.S.	1	375
Robin, Jones & Whitman, Liverpool, N.S.	1	340

The above vessels are in addition to those that are being built under contracts placed by the Munitions Board.

At a later stage of the discussion the subject turned upon wages and cost of construction and the probability of the shipbuilding industry becoming permanent in Canada. On this point Hon. Mr. Hazen said that to carry on the business of the world there would be a great demand for ships after the war. In consequence of this the shipyards of Great Britain and Canada would have a great deal of work to do, and would require to build a great many ships for carrying on the business of the country for some years to come. He expected that Canadian shipyards, with the impetus they were getting now, would be able to compete with the shipbuilders of the United Kingdom.

Official information received by the Canada Lumberman in regard to the building of vessels for the Imperial Munition Board includes the statement that:—"The timber called for in the specifications may not be procurable and we would consider any satisfactory substitute." Our advice is that the Munitions Board is anxious to impress upon prospective eastern ship-builders the fact that if they are able to procure a suitable timber elsewhere they can obtain contracts.

The terms on which the Board is placing these contracts are for reimbursement of the contractor for the actual cost of building, including labor, material, and overhead, plus a fixed sum by way of profit for each vessel constructed. Under these circumstances, and because definite results must be secured the Board will examine closely into the capacity, resources and experience of each firm seeking a contract.

With regard to any construction undertaken in Eastern Canada, the essential point will be for the contractor to satisfy the Board that he has or can obtain on reasonable terms a sufficient quantity of suitable lumber.

Large Order for U.S. Ship Lumber

Washington, D.C.—General George Goethals, director of the United States Emergency Fleet Corporation, has accepted the proposition of the special committee of the Southern Pine Association, submitted on May 4, for 100 complete ship schedules, aggregating approximately 140,000,000 feet of lumber.

Deilveries will begin as soon as shipbuilding contracts are announced and locations of shipyards are made known, and continue over a period of several months. Orders will cover complete unit lots from each mill.

It is announced that contracts for ships will allow nine months as the least time and from that to eighteen months in which ships can be built, depending on local conditions.

On this basis there is no question as to the mills' ability to furnish all the timbers necessary long before the builders require them.

The government is understood to consider green timbers as suitable. The revised ship schedule, now nearing completion at Washington, increases the lineal average lengths from 30 to 40 feet on nearly 300,000 feet.

This schedule is practically the same as that recently distributed by the Southern Pine Association among its members.

The Southern Pine Emergency Bureau's special committee is now conferring with heads of the various government departments regarding their requirements for lumber and suggesting changes in specifications which will greatly increase the amount of material available.

Death of George F. Robinson

George F. Robinson, aged 61, a well-known lumberman of Nelson, B.C., died of pneumonia, following an operation at a hospital in Victoria, B.C., recently. The late Mr. Robinson was general manager for the Western Canada Timber Company at Gerrard, B.C., and previously had been manager of the Summit Lake Lumber Company. He owned extensive timber limits in that section. Mr. Robinson was born in Brighton, N.B., and went west to Winnipeg in 1885. He was interested in the Northwest Lumber Company, at Winnipeg, for whom he travelled upon the road. Subsequently he acquired interests in Selkirk, and he left Manitoba for British Columbia about 1897.

Ten New England Forestry Units

Lumbermen Show Patriotism by Organizing and Equipping Units To Be Sent Overseas at Once.

Lumbermen in the New England States are exhibiting a fine line of patriotism in connection with the organization of forestry units to be sent to England and France. They have inaugurated a campaign to raise, equip, and send abroad, largely at their own expense, ten large portable sawmill units, and have insisted that all expenses until the outfits are loaded on the British transport shall be paid by them, although the British Government had expected to pay for the mill outfits to the extent of about $100,000.

An initial expenditure of $125,000 to $150,000 will be necessary to provide the mills and equipment and to recruit the 400 experienced woodsmen and millmen required for cutting lumber abroad and manufacturing it into railroad ties, trench props, etc.

Each of the New England States has agreed to provide a sawmill unit, and the New England lumber industry, as a body, has pledged itself to provide and equip four others, making a total of ten. This work is entirely distinct from the project of the war department to recruit a regiment of foresters. The New England lumber mill units will sail at a very early date, and will be engaged in active work before the larger body is fully recruited.

The greatest difficulty will be in connection with obtaining lumberjacks and expert sawmill hands, of whom there is a great shortage in New England at present.

Nearly every sawmill in New England to-day is operating with a much smaller staff than usual. Mr. Martin A. Brown, treasurer of the Woodstock Lumber Company, has been placed in charge of the recruiting of the lumberjacks, and Harry B. Stebbins, of the H. B. Stebbins Lumber Company, is in charge of recruiting of sawmill hands.

The British Government will provide transportation and pay all transportation expenses, as well as the wages of the men while they are at work abroad. The staff in charge of the ten units will consist of a general manager, an assistant general manager, a head engineer, a millwright, a veterinary, a physician, a storehouse and shipping clerk, a secretary and a stenographer, an accountant and cashier, the paymaster and traveling accountant, a purchasing and sales agent, and a head scaler and checker.

The following organization of the ten units and scale of wages has been tentatively agreed upon, subject to the approval of the British Government:

Executive

One general manager for mills and woods	$ 250
One general bookkeeper and accountant	125
One general engineer and millwright	150
One general storekeeper	125
One general secretary and stenographer	100
Ten book and timekeepers (one for each unit)	1,000
	$ 1,750

Woodsmen

Ten cooks at $85	$ 850
Ten foremen at $110	1,100
Ten blacksmiths and spare men at $70	700
Fifty teamsters at $60	3,000
Fifty head choppers at $60	3,000
Fifty swampers at $55	2,750
Fifty second choppers at $55	2,750
Ten swampers at $55	550
Ten cookees at $50	500
	15,200

Millmen

Ten millwrights and filers at $115	$1,150
Ten sawyers at $110	1,100
Ten engineers at $70	700
Ten checkers at $65	650
Ten roll-on men at $60	600
Ten take-away men at $60	600
Twenty lumber stickers at $60	1,200
Ten slab and fuel men at $55	550
	6,550
Total monthly wages for ten units	$23,500
Average cost of each sawmill unit per month	2,350

Total number of employes, 395.

The following is a schedule of what is required in the way of machinery and equipment for each portable sawmill unit:

Boiler and Engine

One portable 50-60 horse-power, to carry not less than 100 pounds working pressure, preferably 125-150 pounds; locomotive type; Massachusetts standard; with injector or inspirator and pump.

One spark arrester.

Three 50-gallon oil barrels.

One 1½-2 horse-power gasoline engine and pump.

One thousand feet 1¼ in. wrought iron pipe, with couplings and elbows.

One set large wheels and axles for moving mill.

Mill

One rotary, preferably right hand, which can saw up to 20-foot lengths; No. 1 Lane, or its equivalent; rack and pinion or rope drive.

Dogs.—One Sawyer's Favorite; two taper or compound upright, and at least two other standard dogs; to include timbers for bed or ways for carriage and bed for saw frame.

One blower, to be equal to No. 1 Rochester, equipped with piping sufficient to clear dust from the mill.

Twelve 6 in. x 24 in. wood rolls, with axles and boxes.

One 24 in. slab saw machine.

Saws

Four 52 in. or 54 in. inserted point circular saws, 7 x 8 gauge; Hoe pattern No. 3, with maximum number of teeth.

Two sets extra shanks for above.

Two thousand extra teeth for above.

Two 26 in. ten-gauge solid slab saws.

Belting

To be selected to suit mill; standard 14 in. eight-ply rubber or waterproof cotton belting for main belt; double leather for feed and gig belt; rubber or waterproof cotton for all other belts.

Spare Parts

Three iron frictions.
Twelve paper frictions.
One flange pulley.
Extra parts for Sawyer's Favorite dogs.
One set of set wheels.
Two sets pet pawls.
Four end sections of carriage rack.
Six centre sections of carriage rack.
Twelve chains and rolls for carriage.
Two rack blocks, with racks.
Three feed pinions.
One circular slide.
Two tail slides.
Six taper slides.
Six under vertical dogs.
Three planed sides.
Three plain uprights.
One saw arbor nut.

Mill Supplies and Tools

One steamfitter's outfit.
One millwright's outfit.
One tube expander.
Extra valves.
Ten pounds soft piston-rod packing.
Twenty-five pounds sheet packing for cylinder heads and flanges.
Five pounds valve stem packing.
Twenty-five pounds cotton waste.
Five pounds pipe joint compound.
Four 3 in. pipe rolls 6 ft. long.
Two five-ton jacks.
One set rope blocks, three shewes in each block.
350 feet 1 in. rope.
One barrel steam cylinder oil.
Two barrels lubricating oil.
Twenty-five pounds cup grease.
One side lace leather.
Three joint alligator belt lacing for 14 in. belt.
Six joint alligator belt lacing for 6 in. belt.
One can belt dressing.
One belt punch.
Three crowbars, 5 ft.
One posthole digger.
One-half dozen pointed short-handled shovels.
Two long-handled shovels.
One half dozen flat iron shovels.
One-half dozen barn brooms, one pickaxe.

Looking for Ash and Hickory Timber Limits

An important British company is considering the possibility of erecting a factory in Canada for the manufacture of ash boat oars and hickory dimension stock. They would require at least three million feet of ash per annum before they would be warranted in putting up a factory to manufacture the ash boat oars, for which they have a market. They would also require large supplies of hickory. If hickory and ash are not obtainable together they might possibly consider the establishment of factories in two localities. Owners of timber areas containing sufficient supplies of ash or hickory, or both, should communicate with the Commercial Intelligence Branch of the Department of Trade and Commerce, Ottawa, referring to file No. 15782.

The Utilization of Lumber Mill Waste

Methods Adopted by a Large Pacific Coast Mill for Using All its Refuse in the Generation of Steam for its Own and Other Plants

By R. L. Watts, Mechanical Superintendent of the St. Paul & Tacoma Lumber Company

Records show that there are over 48000 lumber mills in the United States, and their output of waste in the form of sawdust, shavings, slabs, and other wood refuse is estimated at over thirty-six million cords annually. In most plants where lumber or wooden articles are the finished products, wood is used as fuel for the boilers, because it is a refuse, and can be cheaply disposed of in that manner. In many mills the amount of this refuse is much greater than can be burned under the boilers, and it is necessary to destroy the surplus in an enclosed burner equipped with a spark-arresting screen at the top. The handling of this waste to the burner and the maintenance of the latter cost the mill time and money besides being a source of inconvenience and danger. For years past this enormous waste has been going on, but the day is approaching when the sawmill burner will be of the past.

Much progress has been made in recent years in the utilization of sawmill waste. Some is used in wood-distillation plants, some in pulp mills, some is sent to local fuel markets for steam purposes, and some is used for filling in low places around the mill. No well-managed mill would produce waste if it could be avoided. This, however, is not entirely possible, so the next best thing is to seek out some method of utilizing the waste which will pay for its disposition. To this end the St. Paul and Tacoma Lumber Company, of Tacoma, Wash., one of the big mills on Puget Sound, has recently provided facilities and means for disposing of the entire output of waste at a profit. All the refuse will be used for the generation of steam—some under boilers in the company's two large steam plants, the rest in the Tacoma District Heating Company's plant, and other isolated steam plants in the business district.

The wood fuel is sold on the basis of volume, by the "unit." One unit of mill refuse in ground-up state contains 200 cubic feet.

The sources of the waste in this mill are sawdust and "hogged" (ground) wood from the main sawmill and shingle mill, and shavings and planer dust from the large planing mill and handle factory. From the slabs material for making laths and broom handles is taken, the better grade of the remaining slab is cut up and sold for fuel through the company's fuel department; the rest, accompanied by edgings, trimmings, etc., from the band mills, edgers, etc., passes through fuel grinders (hogs) which reduce it to a size that can be economically handled in boiler plants. The lighter material, such as shavings and planer dust, is handled by large blowers, directely connected to electric motors.

In order to have on hand a reserve supply of fuel to protect against breakdowns and for times that the mills are not running, a storage vault of 200,000 cubic feet capacity was erected. The construction of this building is wood throughout. It is 100 feet long, 50 feet wide, and 65 feet to the peak of the roof. The floor is hoppered to permit of the fuel being taken out readily. All fuel is taken into the storage vault at the top and removed at the bottom through doors discharging on two 16-in. chain conveyors. A 16-in. chain running through the fuel house at the top distributes the fuel evenly, discharging upon this 16-in. chain all of the planing-mill refuse from the blow-pipe 30-in. collector located on the roof. The sawdust and hogged wood from the main sawmill, which is 1,200 feet away, is carried to the fuel house on a 24-in. belt conveyor running at a belt speed of 250 feet per minute. This conveyor is divided into three sections and is driven by electric motors.

The fuel used by the Tacoma District Heating Company is loaded upon specially designed hopper-bottomed cars from the conveyor at the fuel house, and is switched to their boiler plant by the Northern Pacific Railway. Provision is also made to load these cars from the first section of the belt conveyor near the sawmill. On the outside wall of the fuel house are four bins, each of a capacity of one "unit," for loading the motor trucks for quick delivery to small isolated steam plants.

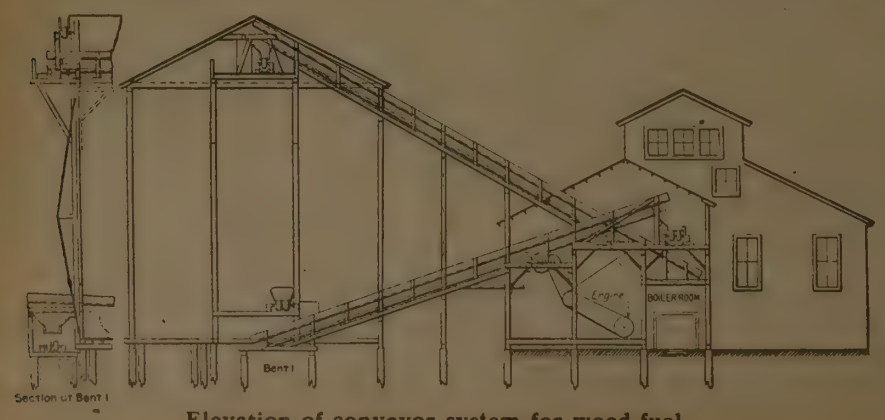
The conveyor which formerly carried the mill waste to the large open burner now discharges into two "hogs" (fuel grinders) capable of handling 35 cords per hour. One of these hogs is driven by a 150 h.p. engine, the other by a 75 h.p. motor. In a short time the burner will not be needed and it is the intention of the management to use this space for an additional storage of fuel, which will be equipped with conveying facilities.

Thirty feet to the south of the fuel house is the new boiler plant, containing eight Stirling water-tube boilers set in two rows of four each. The boilers are equipped with special wood-burning furnaces, and are provided with three methods of firing—from the chain conveyor, by a blower system, and by firing slabs by hand from tramcars which can be run into the boiler room. Ordinarily the first-named method is used, the others serving in case anything should happen to the conveying system. The boilers are not equipped with superheaters, and they operate at 170-pound gauge pressure.

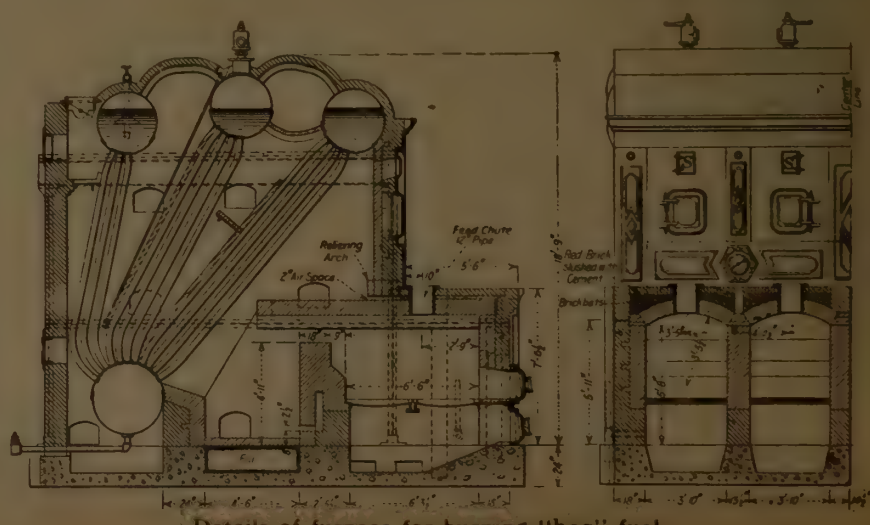
Steam generated in this plant is used in the company's 1,200 kw. turbine generating station adjoining the boiler plant, in dry kilns, in heating and pumping. The Carsten's Packing Company and the Puget Sound Iron and Steel Works also obtain their entire supply of steam from this plant. The packing company is 2,200 feet from the boiler plant and is connected by an 8 and a 10-in. pipe line. The amount of steam used runs as high as 800 boiler horse power at times, and is measured by a flow meter. Owing to the plants being located on tide flats, it was out of the question to consider installing the steam line under ground. Piles were driven and a trussed bridge was erected, on which the steam line is carried and which maintains an overhead clearance of 22 feet on account of crossing over several railroad tracks. However, the line drops in height where it is necessary to pass under elevated tracks.

The structure on which this pipe line is supported also carries two sections of the belt conveyor. Of the steam line 900 feet is 10 in., the balance, 1,200 feet, is 8 in. The pipe is all full-weight wrought iron. Each joint is flanged with extra-heavy cast iron flanges, the flanges being recessed and the pipe peened to place. Expansion in the line is taken care of by long-sweep bends, except in the straight runs, where extra-heavy expansion joints are used, which are equipped with metallic packing. There is an 8 in. line taken off the main line, which connects the other steam plant of 2,000 h.p. with the new plant. At times the two plants are cut in service together, but the reason for making this connection was for emergency use.

The insulation of the steam line is something out of the ordinary and is very high in efficiency. The covering was made on the ground. A mixture of diatomaceous earth, asbestos fiber, and a small amount of building plaster was molded into a sectional covering 2½ in. thick. The sections were carefully grouted, and wired to the pipe, using galvanized wire; the ends and sections were pointed up and served with four layers of tar roofing paper, which was sealed with hot tar; and, as a protection from the weather, two-ply sanded roofing was sealed on and held in place with 1 in. galvanized iron bands. All flanges, separators, and other fittings were treated the same as the pipe. The insulation is one of great efficiency. A test was run over quite a



Elevation of conveyor system for wood fuel.



Details of furnace for burning "hog" fuel.

period, which resulted in the following: The steam, measured by flow meter, 10,128,000 pounds; condensation metered, 213,000 pounds. This shows a loss of 2.1 per cent. and an efficiency for the covering of 97.9 per cent.—Power.

How to Get the Farmer's Business

Farm Paper Advertising Manager Tells of Practical Methods of Trade—Stimulation in Country Districts

By F. O. Baker

For practically twenty-five years I have been selling to farmers and fruit growers—and it took me some time to learn that the first and most important factor in doing so successfully was service.

No matter how small or insignificant the service may appear, it has its bearing on your accomplishing the results you naturally desire to attain as a successful dealer. The little bone button or six penny nail—both of them articles—render a very important service at times, as all of you can testify.

There may be in the lumber business, the same as in all other lines of merchandising, two classes of dealers—men who merely keep lumber yards and those who sell lumber and building material—men who let the customer sell himself—and the lumber merchandising expert, or specialist, if you please, who conscientiously and earnestly studies the requirements of his community as well as familiarizing himself with their desires and who makes an honest effort to meet every condition at a reasonable charge as promptly as possible.

Now this word "service" is much abused. It doesn't necessarily mean throwing in something for nothing—quite the contrary. Real service consists in supplying the needs of the trade in your particular locality; in judiciously buying to suit the requirements of that trade and in aiding the customer to gratify his or her desires on an economic basis— this, to my mind, is service, and if you as a lumberman are meeting these requirements, you are fulfilling your mission in your community as your customer's agent, because as you help the people of your section to save and make money, you prosper yourself.

In considering the different phases of this subject, I thought it might be advisable to talk more directly to those who are located in the smaller towns, as it is the small-town dealer who comes more directly in touch with the farmer, and when you do business with the farmer you generally deal direct with the proprietor. Another point, varying industrial conditions make great changes in city markets, while the farm market is always open to you. No other, to me, seems quite so dependable, quite so staple or quite so positive of development. The rural market has always gone steadily forward, while in some instances the city market has either stood still or gone backward. Give the biggest proprietor of your community—the farmer—the best service it is in you to give.

Then there is a word that closely follows "service." It is "co-operation;" co-operation with the farmer of your locality—community co-operation, if you please. Being a farm paper advertising man, you are no doubt wondering where I will bring in my particular line of business, and right here appears as good an opportunity as any. There are thousands of farmers and breeders who want to advertise their stock or some part of their holding for sale, but do not know how to write the kind of an ad. that will produce the best results at a minimum cost. To help them out, I have in my department a man who has made a study of this character of advertising. He takes the crude copy of the farmer, words it correctly and has it set up by the printer. We take a proof of the ad. and mail it to the prospect, showing him exactly how it will look and inform him of the cost for a given number of insertions. The result is that nine times out of ten we secure the business. This is a character of service that produces business, and I'll leave it to you whether you think it pays or not. The point I wish to bring out is, that most lumber yards, to the farmer particularly, indicate nothing more than a pile of unattractive pine and fir boards, and just what plan or method it is most advisable to adopt that will make your stocks of lumber more interesting, so in some way there may be instilled in the farmer's mind the fact that these rough boards actually represent an attractive home or a substantial barn, is a matter I think should receive your most earnest consideration.

But whatever the plan selected—there is only one practical way to call it to his attention, and that is through his farm paper, which brings us back to the subject of advertising again. Advertising is the one vital force in the world to-day that, once started, neither eats nor sleeps and is one of the big factors in selling the farmers.

While I do not intend to enlarge on the function of the farm paper at this time, I wish to say, however, the farm editor is the best booster of your business that you have; week after week, he keeps advocating better barns, better protection for live stock and better dwelling houses. We are creating customers for you by opening the farmer's eye to the folly and expense of ramshackle buildings; by awakening the farmer's family to a commendable pride in their surroundings; by making him appreciate the real value of a comfortable home and good farm buildings. We publish column and column of good educational matter which is a direct boost for you and the lumber industry.

Also the farm paper editor has slowly learned that he has a great duty in helping to build up the local community and that he cannot do that by tearing down the country town. He has learned that a good, prosperous country town is the best asset that a farmer can have. We don't want the farmer to live in a wilderness away from the comforts and conveniences of civilization. We want to develop social centers and the agricultural community. And that the farmer appreciates this spirit of co-operation is plainly evidenced by the confidence he places in his farm paper.

In digressing from the main subject, I did so with an object in view—to indicate one plan that, to my mind, will help to cash in on the farm paper co-operation for community development.

I offer the suggestion that the lumber dealers concentrate their efforts and resources through some attractive illustrated farm paper advertising—the copy containing cuts of farm homes, silos, chicken houses, barns, stock and machinery sheds, etc. This method will certainly create widespread interest, and then when the farmer consults you as a result of his interest, be prepared to show him attractive buildings constructed from the pile of unattractive lumber in your yards. When you do this, you have gone a long way towards selling the farmer.

Composite Cars Better than All Steel

William Queenan, assistant superintendent of the Burlington railway shops, in an address before the Western Railway Club, Chicago, stated that the composite, or steel frame and wooden superstructed gondola car is superior in nearly every respect to the steel car. In summing up the advantages he specified the following items:

That the initial cost of the composite gondola with the present price of steel should be less than the all steel gondola.

That the composite type of car costs less to maintain than the steel gondola.

That sides of the composite car do not bulge as do those of the steel car.

That records show that while the composite cars cost more to repaint than the steel car, they do not require painting so frequently.

That a large portion of the repairs to composite cars can be taken care of at other than steel car shops.

That certain properties in coal cause corrosion to steel and that wood is not affected by these.

He gave records of 1,000 cars of each type built in 1903. During the last fiscal year, 167 of the wooden cars were in the shops, and 332 of the steel, and the average cost per car of the steel car repairs was 36 per cent. higher than of the wooden or composite cars. The average number of the cars repaired showed that fewer repairs were needed by the composite cars and that the number in service, therefore, was larger.

Lumber Required by U. S. Government

The sub-committee at Washington, D.C., in charge of lumber supply, and of which R. H. Dowman is chairman, has announced that the lumber needed for building the new army cantonments for the conscript army will be obtained at a price averaging between $3 and $5 a thousand feet below the prevailing market price. Through improved specifications and carefully worked out dispositions of supply sources and railroad facilities, it was stated the committee has already saved the government at least $5,000,000, aside from the saving through price agreement. Twelve million board feet of lumber will be required for each cantonment of 25,000 men, and the total which will be needed for all government undertakings, including the shipping board's programme, the aviation school buildings, navy requirements and aircraft buildings, will probably be about one and a half billion board feet. This is about 5 per cent. of the country's annual output, and the promised co-operation of the lumbermen is expected to prevent any unusual advance of the market prices as a result of the government orders.

The Board of Examiners of Cullers for the Province of Quebec will hold meetings, as follows, for the purpose of examining candidates desiring to qualify as log cullers and examiners: Chicoutimi, July 4; Chandler, Gaspe County, July 10; Hull, July 24; Quebec, September 4.

A wood specimen found in glacial drift and estimated by the Wisconsin State geologist to be approximately half a million years old has been identified by the forest products laboratory of the forest service as spruce.

English Timber Trade Regulations

Restrictions Imposed on Import, Export, and Sale of Nearly All Kinds of Wood Goods

The government regulations restricting the use of wood goods in Great Britain have recently been increased so extensively that it is a difficult matter to keep in touch with the actual situation. The Timber Trades Journal, in order to furnish a clear idea of the situation, has published in brief form a record of the leading regulations that have been made this year, and which overrule previous ones. These are as follows:

The import and export of all softwoods is prohibited, except by special license, which must be obtained from the Timber Supply Department of the War Office.

The Army Council has taken possession of all stocks of imported soft woods held by merchants and agents in the United Kingdom of 250 standards and upwards. Stockholders are required to make a return of such stocks to the government timber buyer, on a form provided for the purpose.

No timber purchased in Russia prior to January 1, 1917, shall be sold or offered for sale except to the director of timber supplies, or to persons authorized on his behalf or at prices exceeding by more than 10 per cent. the price at which the timber was purchased, provided that this order shall have no reference to any timber now in stock in the United Kingdom. This order was dated May 3.

The Army Council in February assumed control of all stocks, in the United Kingdom, of soft sawn timber, both planed and unplaned, including sleepers, in order to safeguard supplies for military purposes and to prevent further inflation of prices. All dealings in stocks of timber of these descriptions were prohibited until further notice, though deliveries may be made under existing contracts, and sales are permitted of not more than two standards to any one person, at prices not exceeding those of January 31, 1917.

Under date of April 14 regulations were passed that no timber merchant shall sell in any one month for consumption an amount of imported soft wood exceeding 1 per cent. of the amount of timber which he had in stock in the United Kingdom on April 1, and that he shall not sell for consumption any imported softwood unless he is satisfied that it is required for a purpose of national importance; also if the quantity sold to a single firm or individual amounts to one standard or more he must receive from the purchaser a certificate according to a form furnished for that purpose.

Transactions between merchant and merchant are not subjected to the above regulations.

Retail merchants are allowed to sell beyond their 1 per cent. orders up to £1 in value without a certificate being required that the purchases are for work of national importance.

Timber merchants and large consumers of timber must submit a monthly return of all stocks of soft woods held by them on the last day of each month, except in cases where the stock is less than five standards.

On May 15 the general license permitting the importation of pit props and pit wood was revoked, after which date importers have had to apply for a special license.

Another regulation makes it necessary to obtain permission in writing from the Board of Trade to enter into any agreement for the charter of any ship, which is not a British ship, for the carriage of goods exceeding 1,000 tons in weight, to or from any port in His Majesty's dominions, or in the territory of any of His Majesty's allies; or to enter into an agreement for the purchase of any goods exceeding 1,000 tons in weight from abroad on terms which include freight as well as cost. This regulation has been in effect since January 19.

The importation of hardwoods was prohibited from February 23.

Another regulation, dated March 12, prohibits the exportation to all destinations of all kinds of wood and timber, whether hewn, sawn, or split, planed or dressed; also ash three-ply wood, except under license.

German Plotters Burn Southern Mill

The efforts of the lumbermen of the United States to aid the government, by throwing their entire plant resources to the construction of lumber for Uncle Sam, are facing danger from German agents in the United States. Following a fire at Boston, Ga., which destroyed the large sawmill of the Kirby Planing Mill Company, President W. Frazier Jones, of the Georgia-Florida Saw Mill Association, through Secretary E. C. Harrell, has advised all members to place guards around their property as a precaution against incendiarism, which is believed to have been the cause of the Kirby mill fire.

It is a significant fact that the Kirby mill, which specialized in large timbers, had just completed a large order of these heavy timbers for the government. This stock, together with the sawmill plant, was totally destroyed. According to President Jones, several large sawmills already have thrown guards about their plants, and some of them have reported to the association that suspicious looking men, who refuse to give connected accounts of their actions, have been prowling about. "It is well understood," Mr. Jones said, "that threats have been made to destroy by fire any and all sawmills in this section that are known to be manufacturing ship stock and lumber for the government."

Rite-Grade Red Cedar Shingle Campaign

Abnormally high prices of equipment, such as wire rope, steel, machinery, oil, raw material and labor, coupled with a severe car shortage, have combined in producing high prices for red cedar shingles during the past few months. This is a condition over which the shingle manufacturers have no control, and which applies to all other lines of industry.

Latest reports show that the car shortage is easing up, and Secretary Wyckoff of the West Coast Lumbermen's Association, is announcing the resumption of the Rite-Grade advertising for 1917 along lines just as aggressive as those of 1916. "This year, however," Secretary Wyckoff reports, "Rite-Grade is an evolution, growing out of last year's efforts. The same standard of quality, maintained by rigid inspection service, and this quality advertised to the consumer under the Rite-Grade trade-mark, is the keynote of the advertising.

"Instead of Rite-Grade being an individual brand, however, as it was last year, it will be an inspection mark, to go on all brands of shingles passing the Rite-Grade inspection. In this way there will be gained a widespread distribution of shingles carrying the Rite-Grade official inspection mark. Those mills which use labels will incorporate the Rite-Grade inspection mark in the label. Those using a stencil will incorporate the Rite-Grade inspection mark in the stencil. Those who prefer not to do this will insert under the band a small tag showing the Rite-Grade inspection (see illustration)."

"This," said Mr. Wyckoff, "was the original intention of the Rite-Grade movement—not to do away with the individual brands, as some thought, but to make a beginning of the establishment of a standard

L
W RITE GRADE C
A
INSPECTED
No matter what brand of shingles you buy, insist on this inspection mark being on every bundle. It insures you honesty in grading and careful manufacture.
L
W RITE GRADE C
A
INSPECTED
No matter what brand of shingles you buy, insist on this inspection mark being on every bundle. It insures you honesty in grading and careful manufacture.

of manufacture, as in other lines of building material. It was impossible, however, to do this during the first year, in a general way, so Rite-Grade had to be a separate brand, manufactured by the Rite-Grade mills, under the Rite-Grade specifications. With this accomplished, it is now a simple matter to apply the Rite-Grade to those individual and old-established brands that come up to the official Rite-Grade grading rules.

"Now the retailer who handles an exclusive brand of shingles can do so and still get the benefit of the Rite-Grade advertising by requesting the manufacturer to include the Rite-Grade inspection mark on his individual label or by use of the inspection tag.

"The consumer, however, will only know about Rite-Grade cedar shingles, and thus the carpenter, farmer, and home-builder will be spared the confusion of many brands and many grades. The advertising will appear, as last year, in the leading magazines, farm journals, retail lumber journals, and country newspapers.

"The success of the Rite-Grade effort last year and the enthusiasm of the mills which subscribed the advertising funds has been responsible for many new mills joining the association for the year 1917.

"The advertising plan for 1917 includes the sending of a real red cedar shingle in response to advertising requests. This is to be sent on the assumption that no advertising is better than a sample of the bona fide article. On one side of this sample shingle will be printed (right on the shingle) an illustration of a big cedar tree. On the other side will be pasted a label with an attractive picture of a house and a brief explanation of the "Roof of Ages" and the Rite-Grade inspection feature. These shingles will be mailed as they are—without envelopes, and should be a very effective piece of advertising.

"The advertising, which will begin in May, will be carried on into the fall building months. It will be designed and placed by Mr. C. P. Constantine, who handled it so successfully last year."

Lieut. Gerald Maclean Injured

Flight Sub-Lieut. Gerald A. Maclean, son of Mr. W. B. Maclean, of the Conger Lumber Company, Ltd., Toronto and Parry Sound, Ont., met with a painful accident on June 3 at the Mohawk Aviation Camp, near Deseronto, Ont. While making an exhibition flight before a large number of spectators the engine of his aeroplane got out of control when he was at a height of 400 feet. His aeroplane tipped sideways and fell to the ground. Lieut. Maclean was unconscious for some time after the fall. He sustained a fractured jaw and severe bruises to his legs. Mr. W. B. Maclean left immediately for Kingston upon receiving news of the accident, and brought his son to his home in Toronto. It is expected that his injuries will lay Lieut. Maclean up for about six weeks.

Lieut. Maclean is an expert aviator and has had extensive experience in France and England. He was discharged after an injury sustained while flying in England. After his return to Canada he joined the Curtis Aviation School as an instructor, and subsequently entered the Royal Flying Corps.

U. S. Senate May Strike Out 10 Per Cent. Duty

Private information received by the Canada Lumberman, shortly before going to press, states that the United States Senate will probably strike out the 10 per cent. import duty upon all goods entering the United States which is included in the government's revenue bill. If the Senate takes this course there will be no tax upon lumber entering the United States, as has been expected ever since the announcement of the revenue bill was made. In anticipation of the successful passage of this bill large amounts of Canadian stock have already been sent across the border. The question is occupying the attention of all Canadian lumbermen who are interested in United States markets, and they are watching with considerable interest for a definite turn of events, either one way or the other.

U. S. Trade Conditions Improving

The Hardwood Manufacturers' Association of the United States, in their latest market bulletin say:—"The entrance of the United States into the war has resulted in a brief period of uncertainty. As the government's business program is mapped out this uncertainty is being dispelled. Indications of increased business activity are pronounced in industries manufacturing war essentials. This will stimulate an increased activity in all other lines of business. The proceeds of the Liberty Loan will keep business moving briskly.

"The carrying of a rifle and the making of shells is undoubtedly a highly patriotic service. It is equally as important and as patriotic to keep business moving, to raise crops, to produce and distribute goods. For every soldier at the front we need five men behind the lines—in business, agriculture, mining and manufacturing.

"This is especially true in the manufacturing of lumber, which will so largely enter into future requirements of the Government, and the Association has already filed a request that so far as possible skilled labor in sawmills be exempt from draft."

Complain of Canadian Paper Contracts

The World's Paper Trade Review, of London, England, in a recent issue, says:

"There is a good deal of dissatisfaction among some British merchants who have placed contracts with Canadian firms. The fault appears to be that contracts have been taken which exceed the actual capacity of the mill.

"A letter from one of the largest firms in the United Kingdom also complains of the inferior quality of the material supplied. 'As you know,' says the writer, 'we are only too anxious to do everything possible to foster trade between this country and Canada, and it is for this reason that we feel the more sore over the treatment we are receiving from Canadian houses.'"

North Shore Manufacturers Puzzled

A report from Fredericton, N.B., states that lumber exporters on the north shore of New Brunswick are wondering how they will be able to dispose of their winter's cut. In normal times their chief market is England, and this has been entirely cut off by the English Government's prohibition of imports and commandeering of vessels. From the Restigouche down it is estimated that the cut this year will be between 40 and 50 per cent. less than the normal cut of about 200,000,000 feet. All the logs have been brought out of the woods successfully. The United States market is taking a fair quantity of stock at present, but the transportation facilities are very limited. Mill owners are hopeful that conditions in the foreign markets will improve and that the English embargoes will be lifted.

Canada's Transportation Troubles

Royal Commission Report Comments on Great Mileage and Poor Equipment—Immediate Action Imperative

The report of the royal commission recently appointed by the Canadian Government to enquire into railways and transportation in Canada has been pretty fully reproduced in the daily press, or rather those portions have been reproduced which contain the recommendations of the commission. There are, however, a number of statistics and conclusions in the body of the report which have not been reproduced, and which include much that is instructive and of importance to lumbermen and others whose business brings them into close touch with railroad shipping in Canada.

In the report presented by Sir Henry L. Drayton and Mr. W. M. Acworth it is shown that, in round figures, the operating mileage of the railways in Canada is 40,000, which they say, as compared with the population of Canada is very great. It far exceeds that of the United Kingdom or France, with populations respectively of 46,000,000 and 40,000,000. It is roughly equal to that of the German Empire, with 67,000,000 inhabitants, and of India, with more than 300,000,000 inhabitants. It is only slightly less than that of Russia, with a very rapidly-growing population of 170,000,000. Australia, with an area roughly corresponding to that of Canada, has 18,290 miles of land for 5,000,000 inhabitants; Argentina has 20,290 miles for the same population. Canada has nearly one-sixth of the railway mileage of the United States, but less than one-fourteenth of the population. Evidently judged by the standards of other countries, the railway mileage of Canada bears a very high ratio to the population.

Putting the matter in another way, the growth of the mileage has far outstripped the growth of the population. In 1901, with a population of 5,371,315, Canada had 18,140 miles of railway in operation—roughly a mile for every 300 inhabitants. In 1911 the population had increased by 40 per cent. to 25,400 miles—a mile of railway to every 284 inhabitants. Since 1911 the population has not increased much, but the railway mileage open and under construction has grown to 40,584 miles. In other words, Canada has to-day, taking its present population of 7,500,000, only 185 inhabitants to support each mile of railway. The United States have 400 inhabitants per mile of line; the United Kingdom, 2,000; Russia, 4,000. Even Australia has 274 inhabitants for each mile of railway; Argentina, 238. Canada, moreover, has what none of these other countries have to a comparable degree—a magnificent internal system of natural waterways, which must always, so far as can now be seen, carry a very large proportion of the total traffic.

Why the Car Shortage Developed

Discussing the situation in connection with the Grand Trunk Railway, the report states that, according to the evidence produced, the sum of $21,000,000 will be required to put the existing plant into good, normal condition, and that it is at present quite inadequate for existing traffic, requiring large additions, for which new capital must be raised to the extent of another $30,000,000, bringing the necessary total up to over $51,000,000, in order that the company may be in a position to meet the requirements of its business to-day.

"The effect on the country's business of deficient railway facilities is very serious," the report says. "It is best shown in a period of stress, whether this stress is due to traffic congestion or is the result of bad weather condition. February last gives a good example. The traffic was very heavy; embargoes were the rule and not the exception; weather conditions were worse than usual, even in winter. The Grand Trunk had handled over the lines in its Ontario district in February, 1916, 318,532 cars. Last February it handled only 195,120. In its eastern district in February, 1916, the company handled 210,914 cars; and in February of this year only 109,567 cars. This failure has occurred at a period when the demands on the country for food supplies, munitions of war, and other articles used by the allied armies are extremely heavy. The situation is one which calls loudly and insistently for an immediate remedy."

"The Canadian Pacific," the report says, "is a well-organized line. Its movement also fell off in Eastern Canada. Its two districts probably most nearly comparable to the Grand Trunk's Eastern and Ontario lines are its Ontario and Quebec districts. In February, 1916, the Canadian Pacific handled in its Ontario district 92,255 cars, and in 1917 only 80,414 cars. In its Quebec district it handled, in February, 1916, 130,045 cars, and in February, 1917, only 96,464 cars. The resultant percentage decreases are for the Grand Trunk in its Ontario division 39.37 per cent., and for the Canadian Pacific Railway in its Ontario district 15.58 per cent. For the Grand Trunk in its Eastern division, and for the Canadian Pacific in its Quebec district, the percentage decreases are 48.5 per cent. and 25.82 per cent. respectively.

"The Intercolonial movement in the first division out of Montreal in February, 1916, amounted to 25,446 cars, and for the same month in 1917 to 15,628 cars, a percentage decrease of 38.58 per cent. The Intercolonial system, however, as a whole, had a movement, in February,

1917, of 51,311 cars, as compared with 66,150 cars in February, 1916, a percentage decrease of only 22.85 per cent., while the Grand Trunk, for its entire system handled, in February, 1916, 652,358 cars, and in the same period in 1917, 402,133 cars, a percentage decrease of 38.35 per cent."

In regard to the Canadian Northern, it is shown by the report that the company will need to spend during the next five years $12,500,000 of new capital for additions and betterments and $25,000,000 for new equipment. This is according to the company's own evidence. The commissioners consider these estimates entirely inadequate, and suggest $50,000,000 instead of $25,000,000 for new equipment. The Canadian Pacific Railway, the report says, has seven freight cars per mile of line. The Canadian Northern has three, and to bring this up to five will require an addition of 20,000 cars, involving an additional expense of about $30,000,000. The commissioners say that $40,000,000 for equipment and $30,000,000 for additions and betterments would be a moderate estimate of the system's needs in the next five years.

Drastic Remedy Recommended

Sir Henry L. Drayton and Mr. W. M. Ackworth, in their summary of conclusions, recommend that the development of Canada justified two transcontinental lines, but not three, and that the Grand Trunk and Canadian Northern should have been amalgamated.

They recommend that the control of the Grand Trunk Pacific, the Grand Trunk, and the Canadian Northern be assumed by the people of Canada, and that they be placed under the control of a new public authority—a board of trustees incorporated by act of parliament as the "Dominion Railway Company," and that the three railways be transferred to this body. It is also recommended that the Intercolonial and the National Transcontinental be transferred to the Dominion Railway Company, and that all of these railways be operated as one united system. The board, they suggest, should be composed of five trustees —three railway members, one member selected on the ground of business and financial experience, and one as specially possessing the confidence of railway employees—their tenure of office to be substantially the same as that of judges of the Supreme Court. They recommend that the board be non-political, permanent, and self-perpetuating; also that the authority of the Railway Commission be extended to include the Dominion Railway Company's system; that the functions of the Railway Commission be enlarged to give it jurisdiction over all Dominion railways, and that it be required to report to parliament on all proposed grants of charters, subsidies, and guarantees.

Near the conclusion of their recommendations they state that the cost of hauling grain to the station in Canada is sometimes as great as the cost of carriage from the station to Liverpool, and they recommend that the question of highway improvement and motor haulage be taken into consideration; also that future expenditures on the Hudson Bay Railway be reduced to the lowest possible amount. Finally, they lay stress on the necessity for immediate action, lest Canada should suffer from railway congestion even worse than that of the past winter.

Mr. A. H. Smith, the third commissioner, presented a separate report, in which he states that there is much wasteful duplication of railway lines in Canada, and recommends that the Canadian Pacific be left alone; that the Grand Trunk operate the Eastern lines now held by itself and by the Canadian Northern; that the Canadian Northern operate the Western lines held by itself and the Grand Trunk Pacific; that the government operate the connections or procure their operation by private companies.

Mr. Smith also says: "The railways of Canada are in desperate need of equipment. Whatever decision is made with reference to the railways, the transportation problem is now acute in so far as equipment is concerned. I would, therefore, recommend that the government undertake at once to provide an ample supply of freight cars and locomotives against immediate and imperative needs. These cars and engines may be had, if desired, under trust agreements. It will be a simple matter to turn these cars and engines over to the operating companies under lease, or contract of purchase, which may be exercised when conditions are more nearly normal."

The Quebec Department of Lands and Forests will offer by auction, on August 21, at Quebec, permits to cut timber in the following agencies: Upper Quebec, St. Maurice, Lower Ottawa, Lake St. John West, Lake St. John East, Saguenay, Bonaventure West, and Rimouski West. The largest area, 1,200 square miles, is in the Upper Ottawa,—the upper basin of rivers Kapitajiwan and Sho-Shoquan. The grantees must, within three years, manufacture within the province, from the timber cut in the territory, either pulp or paper in the proportion of ten tons per day or sawn lumber in the proportion of 10,000 feet b.m. per day, per 100 square miles.

The Dominion Board of Railway Commissioners will hold a sitting in Montreal on June 20, to consider the question of the 15 per cent increase on rates asked for by the railway companies.

Miscellaneous and Personal

Col. C. A. Smart, of Smart-Woods, Montreal, has been made a Companion of St. Michael and St. George.

Canada's exports of forest products during the twelve months ending April were valued as follows:—1917, $56,080,582; 1916, $51,629,899; 1915, $42,705,384.

Mr. P. Z. Caverhill, who has been in charge of the forest survey in the Province of New Brunswick, has tendered his resignation, as he desires to return to British Columbia.

New Zealand's imports of hewn and sawn timber during January and February, 1917, amounted in value to £41,614, as compared with £21,950 during January and February of 1916.

The ninth session of the Pacific Logging Congress will be held in Seattle, Wash., in October. The actual date has not been definitely settled. A good programme is being arranged, covering all the important topics in connection with the logging industry.

The Forest Branch of the Department of Lands of British Columbia is presenting to the Technical and Art School at Hamilton, Ont., an exhibit of British Columbia woods, together with a carload of British Coludbia woods contributed by the mills of the province for use during the next school year. The carload will include Western white pine, Western soft pine, red cedar, white pine, and Douglas fir.

Mr. R. P. Butchart, Victoria, B.C., has been appointed by the Imperial Munitions Board to take charge of its wooden shipbuilding programme. The mayor of New Westminster, B.C., reports that in all probability eight wooden steamships will be built there for the Board. The Westminster Marine Railway, who will establish a ship yard on Poplar Island, will probably construct four of these vessels, and the other four will be built by a newly incorporated company.

Lumber shipments for 1916 from the Pacific Northwest States, including both offshore and domestic business, reached a total of only 348,434,152 feet. This is about 75,000,000 feet below the total for 1915, about 240,000,000 less than was shipped in 1914, and about one-half the quantity shipped in 1913. British Columbia offshore and domestic shipments amounted to about 40,000,000 feet last year, as compared with 37,000,000 feet in 1915 and 24,000,000 feet in 1914.

Hon. T. D. Pattullo, British Columbia's new Minister of Lands, is displaying great energy in attacking the many problems awaiting his attention, and has already secured a firm grasp on all vital points. As he comes of an old family of newspaper men, our lumbermen may expect real administrative talent and a progressive policy in every branch of his department. He is being assisted by Mr. George R. Naden, also of Prince Rupert, recently appointed Deputy Minister of Lands.

Encouraged by the striking results achieved by the cypress mills of the South in popularizing that hitherto neglected wood by means of organization and persistent advertising, the redwood mills of California have formed a selling company to proceed along similar lines, while the Douglas fir dealers in San Francisco are also getting together for mutual protection. Co-operation backed by effective and persistent advertising can accomplish wonders for the lumber industry.

What is believed to be the largest diameter wooden stave water pipe line ever constructed in America is being manufactured at Seattle for a Pittsburgh, Pa., steel company. The pipe will be over two miles in length and twelve feet inside diameter. It will take 100 railroad cars to transport these Douglas fir stave pipes from Puget Sound to Pittsburgh, and in addition will require fifty cars to haul the steel bands and other equipment necessary for the erection of the pipe line. This will amount to over five train loads of material in the contract.

Nails cannot be shipped in the same car with shingles, according to a recent decision of the Dominion Railway Commissioners. An application to legalize the innovation was made by the Shingle Agency of British Columbia in order to permit the use of a patent nail holder to be attached to each bundle of shingles. The Commission ruled that if the application were granted it would constitute a discrimination in rates against the manufacturers of other classes of shingle nails, and also a discrimination against the small independent shingle manufacturers in outside districts.

Camp Supplies

¶ Get in touch with us for your requirements. We have always on hand many lines of food stuffs suitable for the Camp, and in times like the present, when values are ruling high, we can very frequently furnish you with a line that is really economical in price.

¶ Ask us for samples of Young Hyson and Japan teas, ranging from seventeen cents up.

H. P. ECKARDT & CO.

Wholesale Grocers

Cor. Church Street and Esplanade, Toronto

Install a KRAFT SODA MILL

CANADA has another big war opportunity: Great Britain needs more wood pulp. Install a small Soda Pulp Plant and Supply this need by converting your Slats, Tops, Bottoms and waste wood around the Saw Mill into pulp. We can dispose of any amount. Previous sources of supply in Sweden, etc., have recently been withdrawn and Canada now has a free field in Great Britain to market unlimited quantities of wood pulp. We can arrange contracts for long periods.
The cost of installing plant is small and you make a sure profit from waste material.

Write to-day for further details

Becker & Co., Ltd.

34-40 LUDGATE HILL
LONDON, E. C.
ENGLAND

THE LARGEST IMPORTERS OF

WOOD PULP

We have specialized in Canadian Pulp and have imported ninety per cent. of the Pulp supplied to Europe since 1899.

SOLE AGENTS FOR

CHICOUTIMI PULP CO., Chicoutimi, Canadian Hot Ground Spruce.
LAHAVE PULP COMPANY.
MACLEOD PULP COMPANY, Liverpool, Canada.
NOVA SCOTIA WOOD PULP AND PAPER MILLS COMPANY.
RIORDAN PULP AND PAPER CO., Montreal. Easy Bleaching Canadian Sulphite Pulp.
ST. LAWRENCE SULPHITE PULP COMPANY.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) $2.10 per inch, each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word, net. Cash must accompany the order. Minimum charge 50 cents.

Advertisements must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 8-t.f.

Hemlock and Cedar Ties

Wanted to buy: Hemlock and Cedar Ties. Apply Box 589, Canada Lumberman, Toronto, Ont. 12-12

Pine and Hemlock

Wanted to buy—200,000 ft. 1 in. and 2 in. Cull Pine or Softwood, also 200,000 feet 1 in. and 2 in. Hemlock. Apply Box 590, Canada Lumberman, Toronto, Ont. 12-12

Edgings Wanted

Wanted—two thousand cords of edgings, bundled preferred, and some hardwood, for cash. Don Kindling, King East, Toronto. 12-12

Maple and Birch

Wanted several cars 4/4 No. 1 Common Maple and Birch; also few cars of thick stock, either dry or this year's cut. Box 583, Canada Lumberman, Toronto, Ont. 11-14

Wanted

Wanted second-hand timber, Fir, Spruce or Pine. State condition and price. Box 593, Canada Lumberman, Toronto, Ont. 12-15

Wanted

Hardwood Pickets, either White or Yellow Birch, Beech, Maple or Ash, separately or mixed, 1⅛ in. x 1⅛ in. x 6 ft. 8 in., 1¼ in. x 1¼ in. x 6 ft. 8 in., 1⅜ in. x 1⅜ in. x 6 ft. 8 in., and 1⅝ in. x 1⅝ in. x 6 ft. 8 in. Can use these sizes in soft wood also.

P. O. Box 58,

11-12 Ogdensburg, N.Y.

Poplar, Birch and Maple

Wanted a large quantity of:

1 in. log run Poplar.
1¼ in. log run Poplar.
1½ in. log run Poplar.
2 in. log run Poplar.

Also 2 in. Birch and 2 in. Hard Maple. State quantities and prices for dry or new cut. J. H. Jones, Thamesford, Ont. 12-13

For Sale–Lumber

Pine and Hemlock

For Sale—500,000 ft. 1 in. and 2 in. Pine Culls, 400,000 ft. 1 in. and 2 in. Hemlock. Apply M. Brennen & Sons, Hamilton, Ont. 12-12

Lumber For Sale

300,000 ft. B.M. 1 x 4 and up Clear and No. 1 Spruce.

400,000 ft. B.M. 2 x 4 to 2 x 10 Spruce. Piled widths and lengths separate.

GEO. C. GOODFELLOW,
c Montreal, Que.

Dry 1916 Stock For Sale

1 x 12, 12-16 ft. Com. and Dressing White Pine, 75,000 ft.
1 x 12 No. 1 White Pine Mill Cull, 60,000 ft.
1 x 7 and up, White Pine Mill Cull, 100,000 ft.
1 x 4 and up, White Pine Mill Cull, 200,000 ft.
2 x 6 and up, No. 2 White Pine Mill Cull, 100,000 ft.
1 x 4 and up, Mill Run Spruce, 150,000 ft.
1 x 4 and up, No. 1 Hemlock, 100,000 ft.
1 x 3 Mill Run Spruce, 35,000 ft.
1½ x 4 ft. No. 1 White Pine Lath, two cars.
1½ x 4 ft. Mill Run White Pine Lath, two cars.

The Elgie & Jarvis Lumber Co., Ltd.,
18 Toronto Street,
12-12 Toronto, Ont.

For Sale–Machinery

For Sale

18 4-Wheel Trucks, Standard Gauge, 24-in. wheels.
1 Log Loader.
1 Double Drum Beatty Hoisting Engine, 7 x 12.

JOHN J. GARTSHORE,
58 Front Street West,
9-12 Toronto, Ont.

List of Sawmill Machinery For Sale

Item No. 1—One Union Iron Works Upright Resaw, eight foot wheels with drive pulleys.

Item No. 2—One improved Mershon & Co. Horizontal Slab Resaw, 5 ft. wheels for 8 in. Saws. These Mills were used only three years.

Item No. 3—One Jump Cylinder, 10 x 12. Giddings & Lewis make.

Item No. 4—Three 6 x 8 Jump Cylinders.

Item No. 5—One Tug Smoke Stack, Size 34 in. x 23 ft. x 10 gauge Iron.

Item No. 6—One Three Saw Edger. Waterous make.

Item No. 7—One Smoke Stack—26 in. x 73 ft., with 7 ft. Spark Catcher. 10 gauge Iron, 40 ft. 12 gauge to top.

Item No. 8—One Timber Surfacer Cylinder Head 30 in. with Side Heads, 14 in. Shop No. 8461, Cut No. 202. McGregor & Gourlay.

Item No. 9—One Picket Machine. McKechnie and Bertram make.
All Machines in good working order.

Item No. 10—One Boiler, 60 x 14—54—3½ in. tubes, 70 lb. pressure.

Item No. 11—One Boiler, 60 x 12—54—3½ in. tubes, 60 lb. Pressure.
These boilers have been inspected by the Ontario Government, using 5 as a figure of safety.

The Pigeon River Lumber Company, Limited,
9-12 Port Arthur, Ont.

Machinery For Sale

16 in. x 38 in. Wheelock Engine.
New Berlin Swing Saw.
24 in. Pony Planer.
Direct current Generator, 125 volt, 125 amperes.
No. 3 Jewel Dynamo Engine.

R. LAIDLAW LUMBER CO.,
11-14 Toronto, Ont.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

A PRACTICAL LUMBERMAN, forty years old, with twenty years' experience is open for engagement June 1, 1917. Last ten years with very large Canadian firm as superintendent and sales manager. Best of references. Box 496, Canada Lumberman, Toronto, Ont. 2-12

POSITION WANTED by a man thoroughly conversant in lumber. Ten years' experience, hard and soft wood, office routine. Both languages. Best of references. Open for engagement as Foreman or Shipper. Box 592, Canada Lumberman, Toronto, Ont. 12-12

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents.

WANTED DEPOT CLERK for Ottawa Valley lumber firm for Northern Quebec Depot, fifty miles from railway. State age and give references as to previous experience. Good position and steady employment for the right man. Box 591, Canada Lumberman, Toronto, Ont. 12-13

Business Chances

Saw Mill For Sale

For Sale- sawmill, stave, heading and lath mill, in Ontario. Plenty of timber in sight. At a reasonable price. Location good. Reason for selling, retiring from business. Address, Box 587, Canada Lumberman, Toronto, Ont. 11-12

For Sale

Timber Limits and Sawmill, estimated fifteen million feet of hardwood and ten million feet soft woods. Sawmill capacity 25 M. feet, shingle mill 125 M. Docks, tug, booms, logging outfit, houses, etc. Price $35,000.

The Manitoulin Lumber Co., Ltd.,
11-22 Walkerville, Ont

Business Opportunity

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Pacific Coast Production

That the lumbering industry in the Pacific Northwest is just beginning to assume its real importance is the conclusion of experts in the Forest Service, which states that by 1940 the Pacific Coast States will have reached the maximum production — 40,000,000,000 feet—or about as much as is now produced annually in the entire country.

The Forest Service recently published a chart showing the production of lumber and the predicted production, covering a period of nearly a century. The chart is based on the production in the South, which reached the maximum about 1910, and will remain at high figures until about 1920. It is shown that by 1920 the Southern pine belt will be waning and the production will drop, as it dropped in Michigan late in the last century.

The chart shows that under normal conditions the production in the Northwest must jump until in 25 years the production must be approximately 40,000,000,000 feet. By 1940, it is shown, the bulk of the first growth forests in private ownership will have been cut out, but an immense acreage of publicly-owned timber will remain untouched.

An interesting feature of the showing made lies in the fact that the peak in the Southern pine belt is reached at 20,000,000,000 feet, while double that output is the peak in the Northwestern States. In other words, the last and best forests are in Washington and

Oregon, and the ultimate output will surpass the output of Michigan and the lake states in their best days, and will overshadow the South by two to one in point of production. Another feature lies in the fact that lumbering is becoming more and more scientific every year, and the very best results are certain to come to the Pacific Northwest in the years yet left in which the maximum cut is to be produced.

In other words, lumbering is coming in where Douglas fir is the forest crop. Lumbering is going out in all other producing sections of the United States.

Thrift in Forest Fires

There are estimated to be 10,000 forest fires in Canada every year, of all sizes and descriptions. Nine-tenths are set by human hands, and the damage runs from four to ten millions of dollars, not counting damage to soil, to the value of watershed areas, and many other factors.

"Thrift in forest fires" is a new movement which the Canadian Forestry Association has started amongst the guides, and campers and sportsmen of Canada, with a view to cutting down the country's timber losses in 1917. As is well known, the present -day causes of forest fires are not the railways as much as the settlers, campers, hunters, and fishermen. Thoughtlessness in respect to camp fires, the throwing away of lighted tobacco, matches, etc., has caused some of the worst conflagrations in history. During the months of May and June, before the fire season is well under way this year, thousands of outdoors men are being asked by the co-operation of the newspaper publishers of Canada to make 1917 a year of thrift in the forest. Not only is Canada's exhaustible supply of timber seriously reduced in a time when it should be protected and improved by every possible means, but hundreds of miles of once excellent fishing and hunting and camping grounds are turned into blackened ruin.

No camp fire should be left this year until it is "dead out." A few extra pails of water or spades of sand will make this point certain. No fire should be set except among rocks or gravel; never in a bog or in leaves or needles. Throwing lighted tobacco or matches into the forest is conduct that is chargeable only to the amateur.

Further British Restrictions Possible

The attention of the Board of Trade has been drawn by the Director of Timber Supplies of Great Britain to the large quantity of wood which is consumed in the manufacture of packing cases intended for the transport of goods, both in the home and export trade. They wish to point out that, in view of the necessity of restricting imports and at the same time of supplying essential war requirements, it is absolutely necessary to observe the strictest economy in the use of wood. Great assistance could be rendered by traders if the use of wooden packing cases and crates were abandoned altogether, or, where this is not possible, if crates were substituted for packing cases. The Board of Trade have had under consideration the issue of an absolute prohibition on the export, except under license, of wooden packing cases containing goods, but they hope that the response of the trading community to the appeal for economy in the use of wood will prove so satisfactory that the necessity for taking this step may be avoided.

Ten Per Cent. Duty Eliminated.

Washington, D.C. — The proposed tariff duty on lumber and other articles has been cut out of the war revenue bill by action of the Senate Committee on Finance. The provision, which was for a flat 10 per cent. ad valorem duty on all articles now on the free list under existing law and for an increase of 10 per cent. ad valorem in the rates of duty now imposed by the present tariff act, was too broad and drastic for the committee. It has received many protests against imposing duties on raw materials needed by American manufacturers. After eliminating the tariff section of the bill, the Finance Committee decided that some substitute for it must be found. It is reported that the substitute for the tariff section will be made up largely of increased or new duties on imported articles, the committee selecting certain articles which it believes can well stand higher duties without injuring American industries or trades.

Wood chemical distillation has been greatly encouraged and promoted in England and her colonies as a result of the war. Acetone is one of the modern chemicals that are largely required for explosives. It is derived from acetic acid, a wood distillate product. Waste wood is largely distilled for this purpose in England, and distillation plants based on the use of cocoanut shells, olive wood, and other tropical woods are being established. The tropical hardwoods seem to be fairly rich in the usual products of destructive distillation.

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Review of Current Trade Conditions

Ontario

If one should form an opinion in regard to trade conditions from what he hears and sees in some of the lumber offices to-day he might not come to a fair conclusion. Frequently it happens that the discussion turns upon the difficulty in getting stock and making shipment, together with the high prices prevailing for all kinds of goods. Yet it would not be right to say that these conditions are keeping trade quiet.

There is a very large volume of trade in progress to-day, and everything that is being sold is bringing high prices. In one office recently we were told that the wholesale trade is experiencing as good conditions to-day as it has for a long time past, and that shipments, both inward and outward, are showing new records each month. To justify this statement the books of the firm were produced, and they undoubtedly gave convincing evidence of the fact that there is a good demand for nearly all kinds of stock, and that aggressive firms of good standing are able to obtain stocks at prices permitting them to conduct a reasonably profitable trade.

So far as shipping conditions are concerned, while freight cars are not nearly as plentiful as the trade would like to see them, they are much more plentiful than they were a few months ago, and steady improvement in this regard is noted, so that firms which formerly were being continually harassed by their inability to obtain stocks which they had sold, or for which they could obtain good orders, are now getting much better service.

The demand for British Columbia fir is exceptionally strong, and distributing firms in Eastern Canada report that they are getting more business in fir than they ever had before. Last year's trade in British Columbia fir in Eastern Canada was greater than in any previous year, and the quantity being disposed of this year promises to be even greater, as it is finding favor in many new fields, both for industrial use and for building construction in cities and towns and on the farms. The future of fir in Eastern Canada looks exceptionally bright. The interest of the consumer has been well awakened, and it only remains to keep up this interest in an aggressive, businesslike manner in order to open up a continually increasing trade. So long as the consumer in Eastern Canada can secure stocks of fir at even fairly stiff prices the market looks as though it will continue active.

One of the most important factors of the market situation to-day is the demand from the United States. Wholesalers and manufacturers of white pine report that they never have had such extensive enquiries and orders for white pine as they are receiving to-day from United States points. The activity across the line is to some extent a result of increased use of wood, arising out of the demand for war purposes, yet industrial uses of every description are taking fair sized stocks, and the outlook is promising for continued activity.

Both in Canada and the United States the shipbuilding programs of the governments are creating a new and larger outlet for lumber and timber, while other war uses, such as the construction of aeroplanes, barracks for troops, etc., are helping to widen the demand.

In connection with the hardwood trade it is difficult to say anything very definite, except to note that the scarcity of logs, caused by the shortage of labor and of freight cars, is preventing Southern manufacturers from keeping up with the demand. Hardwood manufacturers report that they can obtain orders for far more stock than they are able to ship. Some of the larger mills in the South have been obliged to shut down on account of the log shortage. Hardwood prices are strong, and it looks as though there is no possibility of anything in the nature of reduced prices. In fact, manufacturers and wholesalers report that they expect further advances within the next sixty days. War orders for ambulances and wagons of all kinds for the army will take up large quantities of thick oak and thick ash, as well as poplar, cottonwood and gum box boards. Box manufacturers are taking all the low-grade hardwoods they can find. In Canada the hardwood market is difficult to discuss. Most of the small stocks that have been cut are in strong hands, and the demand is good, both for munition purposes and for industrial uses generally.

Eastern Canada

A fairly active trade is reported from Montreal. Improvement has taken place in the car situation, and stocks are being moved at a much better rate than formerly. The actual trade situation continues to be marked chiefly by plentiful orders and limited stocks. Most of the orders are for shell boxes, a large new contract having recently been given out for 4.5 boxes. Prices are strong, and are likely to continue so. Trade with the United States has been exceptionally active on account of the large amount of stock crossing the border in anticipation of a duty of 10 per cent. being imposed by the United States Government. The export business to the United Kingdom has practically disappeared on account of the British Government commandeering all available space for foodstuffs.

Quotations on spruce frames at Boston continue steady. Random prices showed a slight tendency to ease off during the past fortnight, partly as the result of heavy shipments from Canadian mills in order to avoid the proposed duty and higher freight rates. Spruce boards are very firm and enquiries are plentiful. A very strong market is reported for hardwoods at Boston. Few retailers or manufacturing buyers have sufficient stocks; a result of traffic conditions. Sellers who can give prompt delivery are securing good prices. The market for hemlock at Boston is firm with an upward tendency. There is a fair call for plank at good prices. Dimension lumber is quiet. Quotations for shingles at Boston are firm and the market appears to be a little stronger than it was a fortnight ago. Enquiries are fairly plentiful.

Great Britain

In normal times, the season now opening is the busiest part of the year in the timber trade of Great Britain. At present the volume of trade is not what it used to be, yet there is a good deal of business being transacted. Most of the stock at London and other ports is now being absorbed by the Government authorities, and it is expected by the timber trade that these authorities will soon learn that the home production is not sufficient to meet even their own demands, but that a moderate quantity of foreign wood must be allowed to come in.

Most of the importing firms in the Liverpool and Manchester district are now marking time as a result of the new order of the Army Council commandeering softwood, which gives the Council practical control of the whole of this branch of the trade in the United Kingdom. A recent move was the prohibition of timber sailings after May 31. If further stocks are necessary, and this is undoubtedly the case in order to meet the nation's requirements, a certain quantity will probably be taken over on Government account, and now that all the British tonnage is under control of the Government it should be a little easier to arrange for the shipment of such stock. In official circles it still seems to be considered that the country can get along on the stocks already in hand in the United Kingdom, if they are profitably used, so that the outlook is poor for further shipments.

Manchester is having its full share of difficulties in connection with the timber trade. In addition to all the restrictions imposed by the government, it now has a strike of cabinet makers, and joiners and machinists were expected, according to the latest advice, to follow suit immediately. The timber imports have recently been amounting to a little more than was expected. Comparative figures of timber imports to all sections of the Manchester canal for the three months ending April 30, 1916 and 1917, show receipts of 34,358 loads during 1917 and 48,664 loads during 1916. The hardwood trade is taken up entirely by spot conditions. It is practically impossible to figure any c.i.f. costs. Consequently the forward market is very dull. Prices of hardwoods are merely nominal, everything depending upon the willingness of holders to part with their stocks.

United States

Government orders are playing a very important part in the lumber trade of the United States. Many manufacturers are refraining from private contracts until the requirements of the government have been completely filled. One has only to consider the chief requirements of the nation in order to realize what an important effect they will have upon the lumber market. Revised specifications for cantonments call for 13,500,000 feet for each of the 32 divisional camps. Approximately 120,000,000 feet will be required for the construction of aeroplane camps, and another 80,000,000 feet for other government requirements. Already a government demand for some 800,000,000 feet is in sight, exclusive of the quantity required for ship timbers. How much the wooden vessels will consume it is impossible at present to estimate, but it is reported that contracts for 140,000,000 feet have already been placed, covering about 100 vessels. The intention of the government is to build as many wooden steamers as pos-

View of Mills in Sarnia.

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sible, so, this quantity of ship timbers will probably be greatly increased.

There is no important change to report in connection with the car situation. Some mills are finding cars a little more plentiful, while others are experiencing the reverse situation. An order has recently been given by the United States to two American firms for 10,000 composite freight cars for the Russian Government.

The southern pine market shows no change of importance. The demand continues strong and mills are unable to deliver all that they are asked for. Southern manufacturers are having difficulty in obtaining cars and labor is scarce and expensive. Douglas fir manufacturers are devoting much of their attention to government business, and private buyers are finding it difficult to get what they require. A strong demand is reported for large long timbers from the middle west and from the east. The yard trade also continues very active. Mills are only obtaining 50 to 60 per cent. of the cars they could use, but a slight improvement is being reported. Shortage of labor is curtailing the output of western pine. During the present year the production has never reached normal. The demand is strong and much greater than the manufacturers are able to meet. Prices are very firm. Stocks of white pine are pretty well broken and production is being held below normal by weather conditions and labor difficulties. Prices are firm with an upward tendency. Crop conditions in the United States are improving steadily. The acreage sewn of all food crops is considerably more than normal and with the exception of winter wheat the harvest now promises to be a record one.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St John Mills in Operation

St. John, N.B., June 11.—(Special to the Canada Lumberman.)—The last two weeks have seen very little change in the lumber situation at St. John. All the mills are now in operation, Messrs. Miller, Moore & Co. and H. Usher Miller sawing for Messrs. Stetson, Cutler & Co., besides Stetson, Cutler & Co.'s own mills, the product being largely 3-inch, which can be shipped to either the English or American markets. The other mills are sawing for the English markets, and will no doubt continue to do so until the end of the season, unless the present embargo on shipments shall force the mills to shut down for want of piling ground. This, it is hoped, will be obviated by government demand at a later date.

The stock of logs will not be as large as a year ago. It is estimated that not over forty million feet will come through the booms at Fredericton this season. This, added to about seven million feet now on hand, will make in the vicinity of fifty million for sawing to the end of November, when the sawing will be brought to a close.

Some of the mills have a very limited amount of logs, while others have a full stock and in some cases a surplus.

Prices remain unchanged, and, as many mills have contracts to cover the season, very little is looked for. The demand from the Allies remains unchanged. Should another year's campaign be carried forward, no doubt a large amount of lumber will be needed. The United States, also, are said to be contemplating large purchases. Should this be so, it will tax the mills to capacity to supply material enough. All low-grade lumber is in great demand, boards being in exceptional demand. Narrow scantlings and spruce plank of the narrow sizes are bringing about $22 to $23 f.o.b., with 2 x 8 in. at $27 to $28, 2 x 9 in. and 10 in. at $30. Laths are also very firm, being worth in the vicinity of $3.25 to $3.50 f.o.b. The cost of operating is much higher than a year ago, and is gradually advancing, the mills not showing the same daily turnout as under old conditions. Labor of the better class is very scarce and expensive. This, coupled with the most expensive logs ever produced, is eating up the lumberman's profits much faster than the advance in price of sawn products.

Pulpwood prices still remain firm, showing very little weakening. In fact, unless the price does remain where it is, the operators cannot produce it profitably, as jobbers for peeling are asking very much higher prices than a year ago, and good ones are hard to find. Large quantities of wood are now being peeled, but whether as much will be made as a year ago is doubtful. Prices for peeled wood for contracts over 1917 and the winter of 1918 are about $11 per cord, with rossed wood about $13 per cord, on freight rates of from 12 to 14 cents per 100 pounds.

The drives on the St. John are now all completed as far as the upper river is concerned. All that remains is the clean-up of the river from Grand Falls to Fredericton booms. This should be completed, if the water holds at the present pitch, by July 1.

Montreal Trade More Active

Montreal, June 11.—(Special to the Canada Lumberman.)—The car situation has improved, and lumbermen state that, both in the East and West, goods are being moved at a much better rate. Business conditions are much about the same—good orders, with limited stocks. It is a sellers' market, and wholesalers have no need to look for buyers. The great bulk of the orders is for shell boxes, the Imperial Munitions Board having just given out large contracts for 4.5 boxes. Apart from the war orders, there is a satisfactory business in ordinary boxes.

Prices still keep high, and there is a strong opinion that they will continue so for many months. The outlook is for scarce and dear labor, combined with good domestic consumption and increasing demands from the United States. Trade with our neighbors is just now brisk, and enquiries are coming forward in large numbers.

Reports from the province indicate that in certain districts conditions for driving are unfavorable. The ice was not off the lakes until very late, and high winds have also prevailed.

For the month of May the building permits show a decline, for the first time this year. They totalled $490,054, a decrease of $277,015; for the year to date the value was $2,108,914, a gain of $422,620.

Export business to the United Kingdom is practically at a standstill, owing to lack of space, the government having taken all room for grain and provisions. A few odd cars are being sent, practically all for covering grain.

The Montreal Export Trade

A Montreal lumberman who has been in close touch with the export lumber trade for a number of years, writing recently to the Canada Lumberman says:—"The export business during 1916, from a poor start in May, when the ocean rates were around 300s. per standard, and advanced quickly to 390s., improved with the general improvement in other lines of trade. There was a fair amount of shipping during the middle of the season, when rates fell to below the 300s. mark. The result is seen in the total quantity shipped during the season, which was only a little less than the total for the year previous, and considerably more than the total for 1914, which was a very poor year for the export lumber trade.

"During the season of 1917 conditions have been such that even the most optimistic lumberman would not care to make a statement regarding his opinion of the immediate future. Up to the present, the shipments have been nothing compared to those of the corresponding period in 1916, and previous years, and in fact, a good many of the export firms have not yet shipped a single stick. Of course, the principal reason for this is the shortage of ocean space, caused by the taking over by the British Government of 85 per cent. of the carrying capacity of each vessel, to be used for the shipment of wheat, munitions, etc., for the account of the Overseas Transport Department. This left only 15 per cent. of the space available to the steamship owners for general cargo purposes, and since May 31 even this 15 per cent. has not been available, having also been taken over. From that date onward all shipments have been going over for the account of the Overseas Transport Department. Another reason why there has been so little lumber shipped this season is the new rule enforced by the steamship companies, requiring that ocean freight shall be prepaid by the shippers. This has been very disagreeable to the exporters, and the principal firms have refused to ship under such conditions.

"During the past winter the cut of birch timber was practically nil, comparatively speaking, whereas in other years it used to be a considerable item for some of the Montreal exporters."

Boston Trade Somewhat Unsettled

Boston, Mass., June 6.—(Special to the Canada Lumberman.)—The market has shown a slightly easier tendency during the past few weeks. The entry of the United States into the war has affected trade to some extent, and there is practically no house building of any importance in progress at present. The war situation, together with high prices, not only of lumber, but of material of all kinds, as well as labor, have been the chief causes in this situation. There is a substantial volume of trade in progress with the government, and more orders are expected to follow. This demand is keeping the price of dimension firm. Another factor in helping to maintain prices is the shortage of

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lumber stocks, which is figured out at about 30 per cent. in Maine, 30 per cent. in New Brunswick, and 50 per cent. in Quebec. The manufacturer, moreover, has to take into consideration the great cost of getting logs that is likely to prevail next year, and this also is a stiffening feature in the market. Competent authorities are now estimating that logs next winter will cost between $3 and $4 per thousand more, and that it will be exceptionally difficult to obtain them, even at the advanced price. An important feature in the trade during the past few weeks has been the desire of many manufacturers in Canada to move their stocks into the United Staes before the 10 per cent. duty is imposed. This movement flooded the Boston market with random, and affected the price to some extent. The latest information we have is to the effect that the Senate is likely to strike out the proposed 10 per cent. duty on imports when the revenue bill comes before them.

Australia's Imports of Dressed Lumber

An Opportunity for Eastern Canadian Manufacturers to Take a Share of the Trade Held by Norway and Sweden—Flooring Trade Possibilities also Substantial

By H. R. MacMillan

The dressing and seasoning of native woods being difficult, the whole of Australian requirements of dressed boards were for long imported. Even now, with a duty of $9.60 per thousand on all dressed lumber, a very great proportion of the flooring, ceiling, lining, partition stock, and weather boarding required are imported.

In spite of constantly increasing duties, imposed in order to foster the use of native woods and to restrict imports to rough lumber only, the quantity of dressed lumber has grown rapidly, as shown in the subjoined tables:

Year.	Quantity of dressed lumber imported per M. ft. B.M.	Per cent. increase over 1903.
1903	24,764,000	..
1908	48,206,000	82½
1913	82,471,000	233

The increasing consumption of this class of imports, in spite of growing tariff barriers, to the point where, as at present, it is equal to one-quarter the volume and one-third the value of the rough lumber imports, renders it a class of trade well worthy the attention of Canadian shippers.

The following table shows the amount and origin of the importations in 1913, when the duty was $7.20 per thousand feet:

Importation of Dressed Lumber Into Australia, 1913

Countries of origin.	Quantity in feet B.M.
Norway	56,251,228
Sweden	23,571,012
United States	1,938,088
Russia	623,096
Germany	63,737
Netherlands	9,456
Other British possessions	6,771
United Kingdom	3,537
Other foreign	1,520
	82,471,445

The Scandinavian countries, which do the greatest export trade in dressed lumber of all countries in the world, initiated the Australian trade, and during its development have improved their position.

Canada has rarely entered the trade, and the position of the United States has weakened in ten years.

Country of origin.	Proportion of Australian dressed imports supplied. 1903. P.C.	1908. P.C.	1913. P.C.
Norway	71	79	68
Sweden	15	17	28
United States	12	3	2

The Example of Scandinavians

The achievements of Norway and Sweden in this particular bear a moral, particularly for Eastern Canada, and possibly for Western Canada. Norway, because of diminishing forest resources, first developed the practice of exporting her lumber in the most highly manufactured form. Norway had built up a large trade in dressed lumber, while Sweden was still confining her efforts to selling rough lumber. Recent years have brought to Sweden the fear of over-cutting her forest resources and the necessity of building up exports, not so much by increasing the volume as by adding more labor and increasing the value. Sweden has consequently caught up on Norway, increasing her proportion from 15 per cent. in 1903 to 28 per cent. of the total in 1913.

These two countries, with inferior forest resources, by concentration on manufacturing methods, have captured the dressed lumber trade, not only of Australia, but of Africa and South America. Meanwhile Canada has continued to export rough lumber only.

The timber from which Norwegian and Swedish dressed lumber is made is white spruce. About 90 per cent. of the Australian imports are white spruce.

The trees from which the lumber is cut are small, barely large enough to produce a 3-inch by 9-inch deal. The boards are full of tight knots, and none are free from sap.

The manufacture and grading are excellent. The lumber is all cut so as to be full size after six months' air-drying. There are no manufacutring defects, and the method of dressing in machines with fixed knives produces a smooth, waxy finish.

All Scandinavian dressed stuff is very carefully graded. Each manufacturer has an individual brand for each grade, and, while manufacturers differ a little in the standard of grading, each adheres to his own standard with such remarkable consistency through long periods of years that the goods are sold on brand alone. Certain favored brands command a premium in price. The brands are stamped on each board with a gelatine hammer. The boards are tied with lath yarn in bundles of six or eight, each bundle containing one length only.

In normal times dressed timber is imported from Scandinavian mills, often through London agents, both in parcel lots, or in the frequent Scandinavian or German mail and freight steamer lines, and in cargoes. Large stocks are carried by many Australian merchants, some stocks amounting to ten to twelve million lineal feet.

These factors, the familiarity of Australians with the timber from the earliest days, its excellent manufacture, perfectly standardized grading, its lightness and ease of working, and the ease with which small quantities, all absolutely true to grade, may be bought, have enabled Scandinavian dressed spruce and pine flooring, ceiling, lining, and weather-boarding to monopolize the market.

Imported spruce, thick with tight knots, forms the most important flooring, not only for workmen's cottages, in which it is the universal flooring, but also for a very large proportion of better class houses and public buildings.

Imported joint or beaded spruce lining and ceiling is the most common lining, ceiling and partition stock in nearly all buildings. Similarly, spruce weather-boarding is used to a great extent throughout the country in competition with native woods.

Particularly in the growing important trade of the interior of the continent, where rail freight is an important factor, dressed spruce lumber is used in yearly increasing quantities.

Dressed spruce, because of its convenience, has been used to an important degree in building railway carriages, and as the common lumber for rough sheathing where temporary fences, partitions or walls are built. This is particularly the case in all cities excepting Sydney; in Sydney, Douglas fir is displacing dressed spruce for such purposes.

Floorings

All floorings are in random lengths of ten to twenty feet, and where large quantities of any special length are required an extra charge of $4.80 per thousand is made.

The various Australian and New Zealand hardwoods, when well manufactured and seasoned, should furnish the best available class of floors.

The use of floor coverings is so general in Australia, and the public is so wedded to softwood floors that, taking the whole country into consideration, Baltic is by far the most common flooring.

The wider sizes of flooring are preferred, owing to their cheapness in laying.

The Douglas fir used is nearly all run in Australia, chiefly from imported strips in Sydney and from locally sawn strips in other ports. The Australian manufactured fir is inferior in quality to the Canadian manufactured, the work is rougher, the timber is not properly selected or dried, and flat and edge grained are frequently mixed in discriminately. It cannot be considered that Douglas fir flooring has been properly marketed in Australia. The importation of Douglas fir flooring is stated to have declined during the past few years.

The flooring trade in Australia is very important in volume and value, and there are two possibilities for Canadian manufacturers. The chief competition to be met is 6-inch by ¾-in and 6-inch by ⅞-

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"LITTLE DAVID" Tools for shipbuilding comprise Chipping and Riveting Hammers, Drills, Reamers, Grinders, Wood Borers, etc. The "LITTLE DAVID" Wood Borer shown above is made in three sizes, boring holes 1 in. to 4 in. The machine is reversible, and the largest size is about 10 lbs. lighter than other wood boring machines of the same capacity.

Another desirable tool is our CC-101 Drift Bolt Driver. With it, bolts can be driven in any position and at any angle. Two men with one of these machines, will drive a 1⅜" diameter bolt 5 ft. long, with 100 lbs. air pressure through oak at the rate of 5 ft. in 25 seconds. This is a great advance over driving these bolts with a sledge hammer. Our nearest branch will be pleased to give you full information.

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inch white Baltic, a full 6 inches in width without the tongue. Douglas fir manufacturers may find it unprofitable to manufacture flooring for export in the exact sizes in which Baltic is used in Australia. Nevertheless, the trade is worth securing, and can best be secured by meeting every desire of the consumer. A wide, well-machined flooring, even if containing few or many small tight knots, can be sold in Australia if landed at a price which would enable the dealer to retail at a little less than the price of Baltic.

A soft white flooring is the most popular. Spruce flooring with many tight knots is preferred to clear Douglas fir. An excellent opportunity exists for Canadian manufacturers possessing spruce, balsam or possibly hemlock logs, to manufacture such a flooring, as near the exact Baltic specifications as possible.

The mail and cargo steamers sailing regularly to Australian ports afford an excellent opportunity of forwarding parcel shipments. The almost inevitable higher prices of Scandinavian white flooring during the next few years because of the greater timber demand in Europe points to the present as an excellent period for developing the trade.

At times of normal freight rates spruce, balsam, hemlock, and Douglas fir flooring, delivered alongside vessel at Canadian ports, in sizes 6 inches by ⅞ inches by 8 feet to 20 feet, random, odd and even lengths, at $25 per thousand feet, ⅞-inch charged as 1-inch, should find a ready entry to the Australian market. A 5-inch or 5½-inch width, at slightly lower price, would be acceptable.

Provided suitable shipping facilities exist, the spruce manufacturers of Eastern Canada, who occasionally send rough deals to Australia, should be able to make excellent headway in this flooring trade.

Lining and Ceiling

Here, again, there is an opportunity for Canadian trade extension.

The Douglas fir linings used are run in Australia from imported boards, and, considering the off-sizes and the general lower quality of the machine work, offer but little inducement for the user.

Considering that Douglas fir linings sold in the 5½-in. by ½ in. size at prices to compete with Baltic are made in Australia, in quantities which do not give an opportunity for reducing manufacturing costs, from boards imported under a duty of $8.40 per thousand, that full-sized stock is imported, with consequent loss in duty and freight, whereas the ready manufactured linings could be imported at a duty of $9.60, it appears that there can be no reason for not adopting the cheaper course and exporting from Canada the ready manufactured stock by the convenient regular mail and freight steamer. The more nearly this stock can be produced to approximate the most used sizes of Baltic 6-inch by ⅜-inch, ½-inch and ⅝-inch, the more likely are the prospects of trade.

The prospects for supplying Australia with her important requirements of dressed linings will be greater if there can be developed either on the Atlantic or Pacific Coast a supply of spruce or balsam logs in conjunction with a mill specializing on the Australian requirements of dressed lumber. Clear lumber is not necessary and would not be appreciated. It is essential that knots should be sound, tight and smooth dressed. Hemlock with these qualities would be acceptable.

Weather-Boarding

Weather-boarding is used on many workmen's cottages in Australia. The quanties imported annually are large, in spite of the greater use of native hardwoods for this purpose than for linings and floorings.

Weather-boards in use in Australia are made in various patterns, but the best prospects for exporting Douglas fir and spruce from Canada will be a plain bevelled board, square edged, cut two out of 1¼-inch by 7-in, 8-inch or 10-inch. The most important competition to be met is that of Baltic, selling in normal times at about $60 per thousand.

Door Stock

Almost all the doors used in Australia, until about eight years ago, were imported. Since that time a successful effort has been made by means of the tariff to confine Australian purchases of doors to the products of domestic factories.

There being practically no native timber in Australia suitable for the common grades of doors, the importation of undressed door stock cut to size has been encouraged by a lower tariff than that applying to other rough lumber of small dimensions.

The tariff on rough door stock was, until December, 1914, $4.80 per thousand, and now is $7.20 per thousand. The tariff on dressed or partly dressed door stock is $14 per thousand. All door stock is imported in the rough form.

Since the increasing of the duty the imports of door stock have grown rapidly:

	Rough door Stock imported. Feet, B.M.
1903	None
1908	1,012,000
1913	5,027,000

Almost all the door stock imported to Australia is purchased from the United States. The countries supplying the trade in 1913 were:

Country.	Feet, B.M.	Total value.	Av. value.
United States	4,810,000	$208,708	$43.40
Sweden	215,000	7,267	33.80
Canada	3,000	100	33.00
Total	5,028,000	$216,075	

No door stock was imported from Canada in 1914. There are indications that Russia will hereafter compete in this class of material. Almost 600,000 feet were imported from Russia in 1914.

Western soft and sugar pine were originally very popular for door stock. The increasing price of these woods caused the trade to turn to redwood, which now constitutes the greater portion of the imports. The higher cost of redwood, its softness, and the restricted range of treatments possible with it have in recent years led to a more extended use of Douglas fir. The chief objection to the use of Douglas fir is that the belief exists that it costs more to work. Factory managers estimate that this extra cost is 10 to 15 cents per door. In spite of this extra labor cost Douglas fir doors can be manufactured more cheaply than any other on the market. They are also stronger, harder, and preserve their appearance better. Though cheaper to produce, they are sold at the same wholesale price as others. Douglas fir now constitutes less than 10 per cent. of the doors manufactured in Australia. This use, which is growing, would grow even more rapidly if architects, builders, and the private purchasers of doors and interior trim were better instructed regarding the effects to be obtained by the various finishes most suitable for Douglas fir.

Although the imports of door stock have been increasing, the manufacture of doors from ordinary lumber is also increasing. This is particularly true of Douglas fir doors, excellent material for which may be selected from merchantable cargoes. The use of Douglas fir for doors is more common in Sydney than elsewhere.

Redwood door stock is sold f.a.s. for $29 per thousand. The usual specification calls for several sizes of doors, but the 2-foot 8-inch by 6-foot 8-inch by 1½-inch door constitutes two-thirds of the total. The sizes imported for this door are:

	Sizes of pieces. 2/8 x 6/8 x 1½ in.	No. of pieces. Doors.	Feet, B.M.
Stiles	1½ in. x 4½ in. x 6 ft. 9 in.	2	7.5937
L. M.	1½ in. x 4½ in. x 3 ft. 4½ in.	1	1.8984
S. M.	1½ in. x4½ in. x 1 ft. 7½ in.	1	.9140
T. R.	1½ in. x 4½ in. x 2 ft. 8½ in.	1	1.5234
L. and B. R.	½ in x 9 in. x 2 ft. 8½ in.	2	6.0937
Total feet			18.0232

At $29 per thousand, the material (excepting panels) costs on a 35-shilling freight rate $47.84 per thousand feet, or 86 cents per door. The manufactured doors sold in normal times for $3.72 each.

Although enquiries have been made for Douglas fir door stock, especially for the Sydney market, quotations have been difficult to secure. It should, to enter the market, sell at a little less than redwood. Any person desiring to enter this trade may secure enquiries through business firms whose names and addresses may be obtained from the Commercial Intelligence Branch of the Department of Trade and Commerce, Ottawa.

Western soft pine door stock is also in demand, and manufacturers in the interior of British Columbia who can deliver this material f.a.s. Vancouver at $38 to $40 per thousand should have no difficulty in disposing of it. Clear stock is required, free from pitch seams, bundled twenty pieces to the bundle, each length and size bundled separately.

Door stock is usually exported to Australia together with lumber cargoes in quantities varying from 20,000 to over 100,000 feet. The regular cargo sailings from British Columbia offer an excellent opportunity of sending forward parcel shipments to Sydney and Melbourne, the two chief markets.

The greater part of the redwood and yellow pine doors are painted. Douglas fir doors also are frequently painted.

This treatment of the timber deprives Douglas fir of one of its greatest advantages—its appearance. Selling it at the same price as redwood deprives it of its other advantage—its cheapness.

Painted doors and painted interiors militate against the use of Douglas fir. Energy should be devoted to popularizing stained finishes in Australia.

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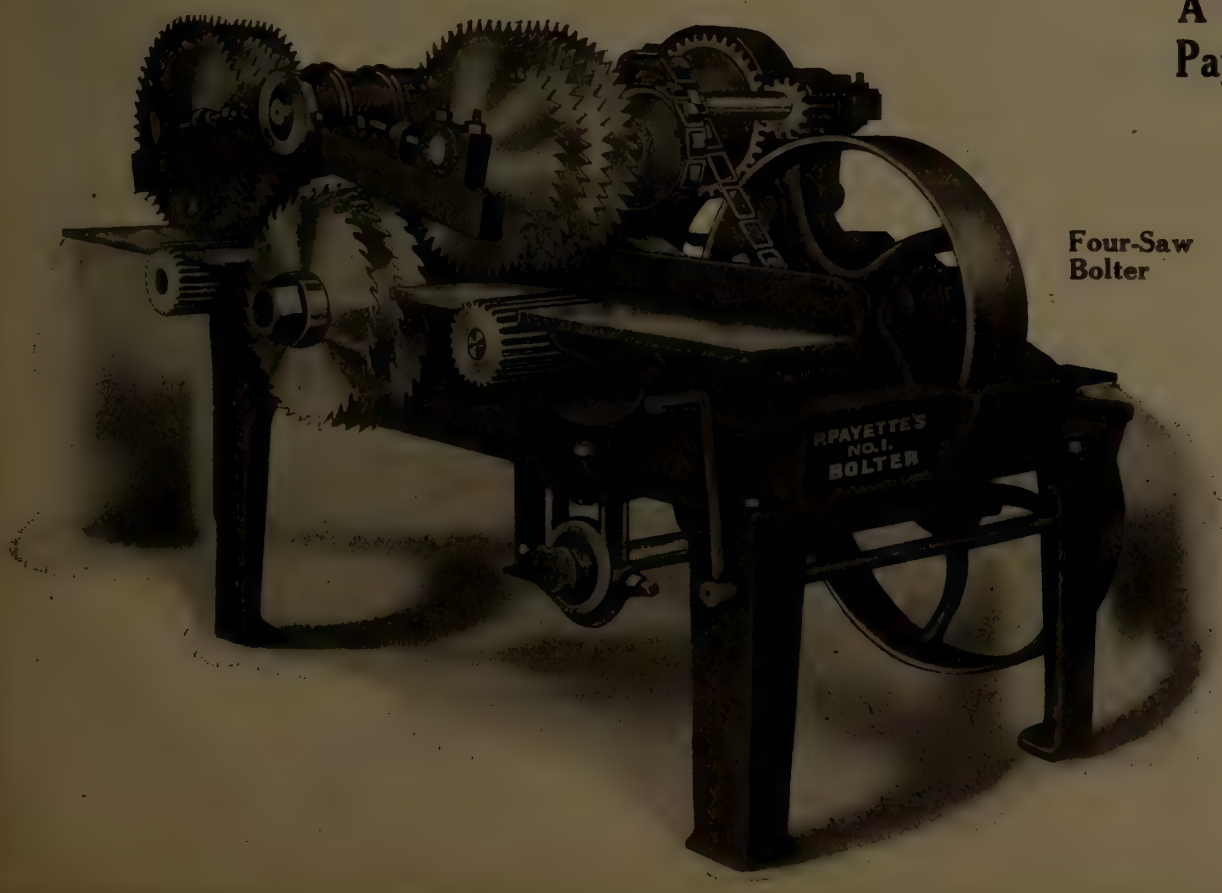

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A Few of the "400" who use Payette's Lath-Machinery:

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C. Beck Mfg. Co., Penetanguishene, Ont.
Manley Chew, Esq., Midland, Ont.
Chew Bros., Midland, Ont.
James Playfair Co., Midland, Ont.
McFadden & Malloy, Spragge, Ont.
Pembroke Lumber Co., Pembroke, Ont.
Petawawa Lumber Co., Ltd., Pembroke, Ont.
Firstbrook Box Co., Penetang, Ont.
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Canada's Woodpulp Resources

Canada will undoubtedly become in the near future one of the world's greatest sources for the supply of woodpulp and paper. This industry has grown by leaps and bounds during recent years, and further large developments are to be anticipated, both in the East and the West. This will mean a constantly increasing strain upon our forest resources, and must result in careful consideration as to whether very large areas, in which the heaviest cutting is being done or is to be done, are not in danger of depletion.

The ravages of fire have been very serious in our pulpwood forests, and the question arises also as to whether present methods of cutting are sufficiently controlled to ensure the reproduction of another forest on cut-over lands. The area of pulpwood lands in Canada is so great that, if fire can be kept out and the reproduction of the forest secured through proper regulation of the cutting methods, the annual growth will provide the basis for an enormous development of the pulp and paper industry for all time to come. This means the practice of forestry, of which we have as yet in Canada only the beginnings.

The Commission of Conservation has started a study of these fundamental problems. This investigation will have for its objects the determination of the extent to which cut-over pulpwood lands are reproducing valuable species in potentially commercial quantities; the effect of fire on reproduction, and the rate of growth of the reproduction present, to determine how long after cutting one may reasonably expect another crop. The answer to these questions should go far in determining what additional measures are necessary to place the business of pulpwood production upon a thoroughly permanent basis.

The work for this season will be under the direction of Dr. C. D. Howe, of the Faculty of Forestry of Toronto University. A co-operative arrangement has been made, under which the first part of the study will be made upon the limits of the Laurentide Company, whose forester, Mr. Ellwood Wilson, will co-operate in the field investigations. It is expected that similar studies will be made in other sections of the pulpwood forests of Canada during succeeding years.

U. S. Manufacturers Prepare Proposed Classification

The lumber manufacturers of the United States have completed their compilation of lumber and forest products to be used as a basis for the Interstate Commerce Commission's uniform classification of freighted products of the woods. The compilation proposed by the special transportation committee of the National Lumber Manufacturers' Association has been completed and filed after a series of conferences, in which the lumber manufacturers declare the proper groupings for various forest products. The lumbermen's classification is a unanimous proposal of the special committee, and does not involve the question of railroad rates, or the proposed changes in tariffs. It is prepared in accordance with the wish of the Interstate Commerce Commission to have a simplified set of descriptions and groupings of forest products, to be used in the various classes, regardless of the rate of freight fixed. The lists briefly are as follows:—

No. 1.—Lumber and lumber products, including lumber rough dressed of all grades, no further advanced in manufacture than by sawing, resawing, running through a planing machine, and cutting to length, should move uniformly through the United States whether shipped in straight or mixed carload lots. A long list of special articles to move under this list is also included.

No. 2.—Millwork or other accessory lumber plant products, embraces various articles, unprimed, unpainted and unironed, this including such articles as glazed doors, screen doors, and the like.

No. 3.—Miscellaneous forest products, which may be given special treatment, in some cases to go under lower than lumber rates, but in no cases higher, this list including piles, poles, cribbing, bark, cordwood and many others.

The Canadian Chemical Journal

The latest addition to the ranks of Canadian technical and trade publications is that of the Canadian Chemical Journal, a monthly magazine published by the Biggar Press, of Toronto. Mr. E. B. Biggar, who is at the head of the undertaking, founded the Pulp and Paper Magazine fifteen years ago. The first issue of the new journal, that for the month of May, made its appearance recently, and is the equal of many of the best technical and trade publications now being published. There is an excellent opening for a journal of this class, and its wide field will be immediately apparent to those who read the first issue. Millions of dollars of new capital have been invested of late in the chemical industries of Canada, and the future of the industry is so great that one hesitates to predict its boundaries. In natural resources, both in the shape of raw materials and water-powers, the chemical industry of Canada is splendidly endowed, and with the development which has already commenced, consequent upon the eclipse of the German chemical industry, the wisdom of establishing a Canadian chemical journal appears to be amply demonstrated.

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72 x 18	H. R. T. Boiler	150 lbs.	Ont.
60 x 16	" "	135 "	"
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2—50	H.P. " "	125 "	"
2—50	H.P. " "	120 "	Alta.
3—30	H.P. Vertical "	100 "	Ont.
6—25	H.P. " "	100 "	"
8—20	H.P. " "	100 "	"
4—15	H.P. " "	100 "	"
3—12	H.P. " "	100 "	"

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EDGINGS

Ontario

The Colonial Lumber Company, Pembroke, Ont., recently lost their mill by fire. The loss on the building and machinery is estimated at $135,000. The company carried insurance to the extent of $176,000.

The sawmill belonging to T. B. Chalk at Bawdley, Northumberland County, Ont., was recently destroyed by fire. The loss included two planers, an edger, trimmer and a lath mill. A quantity of lumber in stock was also destroyed. No insurance was carried.

The Beattie Land Company, Limited, has been incorporated with head office at Charlton, Ont., and capital stock of $100,000, to carry on business as lumbermen and timbermen and a general pulpwood business. The provisional directors of the company are A. E. Cranstoun, E. W. Kearney, and J. A. Amm, all of Haileybury, Ont.

The Kinleith Paper Mills Ltd., have been incorporated with head office at St. Catharines, Ont., and capital stock of $400,000, to carry on business as manufacturers of and dealers in paper, pulp, logs, lumber and timber. The provisional directors are W. Bain, R. Gowans, C. D. Magee, J. Henry and A. C. Simmonds, all of Toronto, Ont.

The planing mill belonging to the Canada Pine Company at Huntsville, Ont., has been destroyed by fire. Some boys playing with matches set fire to shavings and started the confiagration. Owing to the direction in which the wind was blowing the sawmill and main buildings were spared. The loss, however, is heavy, and is partly covered by insurance.

The Ontario Timber and Ranching Company, Limited, have been incorporated with capital stock of $40,000 and head office at Toronto, Ont. The company have purchased considerable property in Peterboro County which will probably be developed next winter. Mr. W. S. Morden, care of the Guardian Trust Company, 12 King Street East, Toronto, is interested. They will carry on business as timber merchants and sawmill proprietors.

The Wye Lumber Company, Limited, has been incorporated with head office at Toronto, Ont., and capital stock of $40,000, to carry on business as lumber and timber merchants and as sawmill, planing mill and wholesale and retail lumber yard proprietors. The provisional directors are J. I. Sutcliffe, H. L. Brittain and E. S. Mathews, all of Toronto, Ont. The president and general manager is Wm. York, Bigwood, Ont., and the secretary is Jos. Murphy, 201 Dominion Bank Bldg. The company have timber limits in the French River district which they expect to operate at once.

Eastern Canada

The outbuildings belonging to the W. H. Kelly Lumber Company, Buckingham, P.Q., were recently damaged by fire.

The Northern Lumber Company, Montreal, P.Q., has been registered. Jos. Delisle and Henri deDorimier are interested.

The East Bathurst and West Bathurst mills of the Bathurst Lumber Company commenced operations for the season during the fourth week in May.

The Canada-Newfoundland Lumber Company, recently incorporated with a capital of $300,000, have opened offices at 515 Power Building, Montreal. The company will specialize in dimension timber for shipbuilding purposes and pulpwood.

A federal charter has been granted to the Port Aux Quilles Lumber Company, Limited, with a capital stock of one hundred thousand dollars and head offices in Montreal. Among the company's powers is that of manufacturing and dealing in pulp.

The property of the Swedish Canadian Lumber Company at Nordin, N.B., has been sold to Jos. Ander, who has also purchased the property of the Rosebank Lumber Company. It is understood that these properties, both situated at Nordin, will be used by the International Shipbuilding Company, Limited, in connection with the erection of their Mirimachi ship yards.

Western Canada

The Lumby Saw Mill at Vernon, B.C., has again commenced operations.

The sawmill belonging to Clemes and Fluette at Carlton Hill, Alta., has been destroyed by fire.

The North West Lumber and Supply Company, Limited, has been incorporated with head office at Regina, Sask., and capital stock of $200,000.

The Dewar Shingle Company, Vanvouver, B.C., will erect a dry kiln, a mill and a boiler house at Vancouver, B.C. The cost will be in the neighborhood of $2,500.

J. H. McLean and W. D. McLean have purchased the Acorn Shingle Mill on the Fraser River, near New Westeminster, and intend to commence operating it immediately. They will enlarge the plant.

Cedars Limited are putting in a logging camp at North Vancouver, B.C., and will also erect a sawmill. The company will also put in a logging rail road to their limits on the watershed lands of Lyon Creek.

The Norse-Canadian Ltd., has been incorporated with head office at Vancouver, B.C., and capital stock of $10,000, to carry on business as loggers, sawmill proprietors and lumbermen, and to operate shingle mills, sawmills, etc.

John R. Beatty, Vancouver, B.C., is opening a logging camp back of Prince Rupert, on the shores of Lake Wainwright. The operations will be carried on under the name of Beatty and Corrigan. A number of other camps are being opened up in the Prince Rupert District.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 5th day of July, 1917, for the purchase of License X958, to cut 2,081,000 feet of spruce, balsam and cedar on an area situated on Dome Creek, Cariboo District. Two years will be allowed for the removal of the timber.

Sealed tenders are being received by the Minister of Lands for British Columbia until the 21st day of June, 1917, for the purchase of License X952 to cut 1,995,500 feet of fir, cedar, pine, larch and hemlock on an area adjoining T. L. 32270, Obstruction Island, Clayoquot District. Three years will be allowed for the removal of the timber.

The Emerson Lumber Company are building a sawmill and shingle mill at Prince Rupert, B.C. The work of construction will occupy all summer and involve an investment of $300,000. E. F. Duby, of Vancouver, is in charge of the building of the mills and will manage the whole enterprise. The building of the mills will call for not less than 1,000,000 feet of lumber. Much of the machinery has already been ordered. The plant is to be located at Seal Cove, near the east end of the Prince Rupert Townsite.

A special appeal on behalf of the Association for the Protection of Forests, recently formed, has been issued by Bishop Blais, of Rimouski, P.Q. This circular letter has been widely distributed throughout the province of Quebec. It points out the damage done by fire in the districts of Gaspe, Bonaventure and Matane, Rimouski and the South Shore. To render the work of the association productive, protective measures and a more strictly economical operative system must be established. Not only should these measures concern the settler, but must reach more effectively the lumber operators. Therefore, the co-operation of all interested citizens and members of the government is earnestly solicited in an effort to guard the general interests of society, so as to obtain measures which will secure scientific methods in the cutting of lumber, economical operations, efficacious protection of existing forests, the reforestation of portions of the country where a want of oversight has done its evil work, and finally, the planting of trees in districts where the trees are now disappearing.

A survey of the cut-over pulpwood lands of the Laurentide Company, Limited, is to be made by Dr. Howe, of the Faculty of Forestry of the University of Toronto, in co-operation with the company. The survey will determine the amount of wood left after logging, the reproduction, rate of growth and probable yield of timber after a certain number of years, and will make recommendations as to improved methods of cutting.

Mr. O. M. Thomson, northern New York representative of the Union Lumber Company, Toronto, who has been engaged at the Toronto office during the past two months, has gone to the company's office at Detroit, where he will probably remain during the next three or four months. Mr. H. Hardy, Detroit manager for the company, will be at the Toronto office during the next few months, and will be in charge of the selling end of the business.

One of the largest lumber manufacturers on the North Shore of Lake Huron, writing recently to the Canada Lumberman says that it cost him in the neighborhood of $5 a thousand feet more, to operate in the woods last winter than during the winter previous, on account of the extra cost of supplies and the increase in wages.

Mr. R. A. Pringle, K.C., of Ottawa, the government commissioner, who is investigating the costs and prices of pulp and paper in Canada, delivered an address on June 9 before the Canadian Club at Toronto in regard to the pulp and paper business.

Building permits issued for the city of Toronto during the month of May, 1917, amounted in value to $400,000. During May, 1916, the total was $200,750. In May this year 150 permits were issued, against 74 in May, 1916.

Extensive rains in New Brunswick have produced high water and excellent logging conditions on the main logging rivers. Reports from all sections indicate that all the logs have made good progress.

We have for sale the following

DRY SPRUCE

1 x 4 in. 10/16 ft. merchantable	394 M
1 x 5 in. 10/16 ft. merchantable	250 M
1 x 6 in. 10/16 ft. merchantable	31 M
1 x 6 in. 10/16 ft. merchantable	29 M
1 x 10 in. and 11 in. 10/16 ft. merchantable	16 M
1¼ x 8 in. 10/16 ft. merchantable	46 M
1¼ x 9 in. 10/16 ft. merchantable	13 M
1¼ x 10 in. and 11 in 10/16 ft. merchantable.	7 M
2 x 4 in. and up 10/16 merchantable	100 M
3 x 6 in. 10/16 merchantable	200 M
2 scant. x 4 in. 10/16 merchantable	73 M
2 scant. x 5 in. 10/16 merchantable	190 M
2 scant. x 6 in. 10/16 ft. merchantable	245 M
2 scant. x 7 in. 10/16 merchantable	117 M
2 scant. x 8 in. 10/16 ft. merchantable	95 M
1 x 5 in. and up 10/16 ft. cull	480 M
2 x 4 in. and up 10/16 ft. cull	53 M
2 scant. x 4 in. and up 10/16 ft. cull	75 M
3 x 4/8 in. 10/16 ft. cull	250 M
3 x 9 in. and up 10/16 ft. cull	500 M

If interested, would be pleased to quote lowest prices, which are subject to stock being on hand on receipt of enquiry.

The McLennan Lumber Co.
LIMITED
Wholesale and Retail
21 Dorchester Street W. - MONTREAL, QUE.
Telephone Main 8656. Private exchange to all departments

H. BOURGOUIN
Dominion Express Bldg., 146 St. James St., Montreal
WHOLESALE LUMBER AND TIMBER
Dressed and Rough
White and Red Pine, Spruce, Hemlock, Banksian Pine, Birch, Maple, Dimension Cedar, B. C. Fir, Yellow Pine, Railway Ties, Fence Posts, etc.
Prompt shipment. Satisfactory stock. Good service Write for Prices.
A. F. B. AUSTIN, Manager

Your Blower System

If you contemplate installation of a new blower system or an extension of your present one, write us, as we have a unique proposition to offer. There is no heating, clogging or shaking with our system.

Prices on application

The Toronto Blower Co.
156 Duke St., Toronto

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better.	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	52 00	54 00
4/4 No. 2 and 3 cuts		33 00
5/4 and 6/4 No. 2 and 3 cuts	38 00	40 00
8/4 No. 2 and 3 cuts	40 00	42 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	35 00	36 00
1 x 6 common and dressing ...	37 00	39 00
1 x 8 common and dressing ...	38 00	40 00
1 x 10 common and dressing ..	40 00	42 00
1 x 12 common and dressing ..	43 00	45 00
1 x 10 and 12 mill cull stocks	30 00	31 00
1-in. mill cull sidings	27 00	28 00
5/4 and 6/4 x 4 m.r., m.c. out.	35 00	36 00
5/4 and 6/4 x 5 m.r., m.c. out.	35 00	36 00
5/4 and 6/4 x 6 m.r., m.c. out	35 00	36 00
5/4 and 6/4 x 8 m.r., m.c. out.	36 00	37 00
5/4 and 6/4 x 10 m.r., m.c. out	42 00	43 00
5/4 and 6/4 x 12 m.r., m.c. out	44 00	45 00
2 x 10 common	36 00	38 00
2 and 3 x 12 common	39 00	40 00
1 x 8 box and common		33 00
1 x 10 inch box and common.		35 00
1 x 12 inch box and common.		35 00
1-in. mill run sidings		35 00
1-in. mill run shorts		28 00
1-in. mill run Norway		30 00
2-in. mill run Norway	33 00	35 00
Norway, c. and cf. 1-in.	38 00	40 00
Norway, c. and cf. 1½-in. ...	39 00	41 00
Norway, c. and cf. 2-in.	39 00	41 00
Spruce mill run 1-in. and 2-in.	31 00	32 00
Spruce mill culls	26 00	27 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		23 00
1 x 6-in. x 9 to 16 ft.		27 00
1 x 8-in. x 9 to 16 ft.		28 00
1 x 10 and 12 in. x 9 to 16 ft.		29 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		26 00
1-in. No. 2, 6-ft. to 16-ft.		20 00
2 x 4 to 12, 10 and 16 ft.		27 00
2 x 4 to 12 in., 12 and 14 ft...		27 00
2 x 4 to 12 in., 18 ft.		30 00
2 x 4 to 12 in., 20 ft.		32 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		22 00
Clear in. B.C. cedar, kiln dried	50 00	55 00
Douglas Fir:		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		41 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16		41 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		41 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x18, 16x20, 18x18, 20x20, up to 32 ft.		42 00
10x20, 18x20, up to 32 ft.		42 50
6x18, 8x18, up to 32 ft.		42 50
6x20, 8x20, up to 32 ft.		42 00
Timber in lengths over 32 feet subject to negotiation.		
Fir flooring, 1 x 3, edge grain..		43 50
Fir flooring, 1 x 4, edge grain..		46 50
Fir flooring, 1 x 4, flat grain..		39 50
No. 1 and 2, 1-in. clear Fir rough		50 75
No. 1 and 2, 1¼ and 1½ in., clear Fir rough		56 00
No. 1 and 2, 2-in. clear Fir rough		52 00
1½-in. No. 1, 4-ft. pine lath.		6 00
1½-in. No. 2 4-ft. lath		5 70
1½-in. 32-in. pine		2 75
1½-in. No. 1 4-ft. hemlock lath.		4 50
1½-in. mill run hemlock lath.		4 25
XX B. C. cedar shingles		3 35
XXX 6 butts to 2-in.		4 45
XXXXX		4 95

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	$65 00	71 00
Ash, white, No. 1 common....		45 00
Ash, brown, 1sts and 2nds, 4/4		57 00
Ash, brown, com. and bet. ...		45 00
Ash, brown, 1sts and 2nds, 6/4 and 8/4		65 00
Birch, 1st and 2nds, 4/4		50 00
Birch, No. 1 com. and bet., 4/4		40 00
Birch, 1st and 2nds, 6/4 and 8/4		55 00
Birch, 1st & 2nds, 10/4 and 12/4		65 00
Birch, 1st and 2nds, 16/4		70 00
Basswood, 1sts and 2nds, 4/4 ...		50 00
Basswood, No. 1 com. and bet., 4/4		43 00
Basswood, No. 2 and 3, common		22 50
Basswood, 6/4 and 8/4, 1sts and 2nds		55 00
Basswood, 6/4 and 8/4, com. and bet.		42 00
Basswood, 4/4, No. 2 com. and bet.		37 00
Soft elm, 1sts and 2nds, 4/4 ...		45 00
Soft Elm, No. 1 com. and bet., 4/4		38 00
Soft Elm, No. 2 and 3 common.		19 00
Soft Elm, 6/4 and 8/4, 1 and 2		50 00
Rock Elm, 1sts and 2nds, 6/4 & 8/4		55 00
Rock Elm, No. 2 com. and bet., 6/4 and 8/4		40 00
Soft Maple, 1sts and 2nds, 4/4..		40 00
Soft Maple, com. and bet., 4/4.		33 00
Soft Maple, 6/4 & 8/4, 1sts and 2nds	45 00	50 00
Hard Maple, 1sts and 2nds, 4/4		43 00
Hard Maple, com. and bet., 4/4		37 00
Hard Maple, 12/4 and 16/4, 1sts and 2nds	65 00	70 00
Red Oak, plain, 1sts and 2nds, 4/4		64 50
Red Oak, plain, No. 1 com., 4/4		44 50
Red Oak, plain, No. 2 com., 4/4		33 50
Red Oak, plain, 1sts and 2nds, 6/4 and 8/4		70 00
Red Oak, plain, 1sts and 2nds, 12/4 and 16/4	77 00	85 00
White Oak, plain, 1sts and 2nds, 4/4		64 50
White Oak, plain, No. 1 com., 4/4		44 50
White Oak, plain, No. 2 com., 4/4		33 50
Red and White Oak, plain, 1sts and 2nds, 5/4 and 6/4	65 00	68 00
Red and White Oak, plain, No. 1 com., 5/4 and 6/4		48 00
Red and White Oak, plain, No. 2 com., 5/4 and 6/4		35 00
Red and White Oak, plain, 1sts and 2nds, 8/4		70 00
Red and White Oak, plain, No. 1 com., 8/4		50 00
White Oak, plain, 1sts and 2nds, 12/4 and 16/4	80 00	85 00
White Oak, ¼ cut, 1sts and 2nds, 4/4		89 00
White Oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds		92 00
White Oak, ¼ cut, No. 1 com.		57 00
Hickory, 1sts and 2nds, 4/4 ...		64 00
Hickory, 6/4, 1sts and 2nds..		70 00
Hickory, 8/4, 1sts and 2nds ..		75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$55 00	57 00
1¼-in. and 1½-in. x 8-in. & up	64 00	67 00
2-in. x 7-in. and up	65 00	68 00
No. 2 cuts 2 x 8-in. and up...	47 00	48 00
Pine good strips:		
1-in.	42 00	44 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	53 00	56 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	45 00
1-in. x 4-in. to 6-in.	32 00	34 00
1¼-in. and 1½-in.	53 00	55 00
2-in.	54 00	56 00
7-in. to 9-in. A sidings	27 00	30 00
Pine, No. 1 dressing sidings ...	39 00	42 00
Pine, No. 1 dressing strips	37 00	40 00
Pine, No. 1 dressing shorts....	34 00	36 00
Pine, 1-in. x 4-in. s.c. strips....		34 00
Pine, 1-in. x 5-in. s.c. strips....		35 00
Pine, 1-in. x 6-in. s.c. strips....		37 00
Pine, 1-in. x 7-in. s.c. strips....		37 00
Pine, 1 x 8-in., s.c., 12 to 16 ft.		38 00
Pine, 1-in. x 10-in. M. R.		40 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	36 00
Pine, s.c. strips 1-in.		33 00
1¼, 1½ and 2-in..	31 00	36 00
Pine, s.c. shorts, 1 x 4 to 6 in.	24 00	30 00
Pine, s.c. and bet., shorts 1 x 5		32 00
Pine, s.c. and bet., shorts, 1 x 6		33 00
Pine, s.c. shorts, 6'-11', 1"x 10"		36 00
Pine box boards:		
1"x 4" and up, 6'-11'		24 00
1"x 3", 12'-16'		24 00
Pine, mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	25 00	27 00
Pine, mill cull stock, 1 x 12 ..		32 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		25 00
O. culls r & w p	16 00	17 00
Red Pine, log run:		
mill culls out, 1-in.	28 00	30 00
mill culls out, 1¼-in.	28 00	30 00
mill culls out, 1½-in.	28 00	30 00
mill culls out, 2-in.	28 00	30 00
mill culls, white pine, 1"x 7" and up	29 00	30 00
Mill run Spruce:		
1"x 4" and up, 6' 11'	24 00	25 00
1"x 4" and up, 12'-16'		28 00
1"x 9"-10" and up, 12'-16'..		33 00
1¼"x 7" 8-9" and up, 12'-16'		33 00
1¼"x 10" and up, 12'-16' ...		36 00
1½" & 2"x12" and up, 12'-16'		36 00
Spruce, 1-in. clear (fine dressing and B)		37 00
Hemlock, 1-in. cull	15 00	18 00
Hemlock, 1-in. log run	23 00	24 00
Hemlock, 2x4, 6, 8, 10, 12/16' ..	26 00	28 00
Tamarac	24 00	26 00
Basswood, log run, dead culls out	24 00	26 00
Basswood, log run, mill culls out	26 00	28 00
Birch, log run	19 00	22 00
Soft Elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine, 1½-in. x 4-ft.	4 25	4 50
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath		2 00
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine		
First class Ottawa waney, 18-in. average, according to lineal.	60	65
Oak		
According to average and quality	60	70
Elm		
According to average and quality, 40 to 45 feet	80	85
According to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$74 00
1 in., 8 in. and up wide	83 00
1¼ and 1½ in. and up wide	86 00
2 in. and up wide	88 00

Cuts and Better

4/4 x 8 and up No. 1 and better	58 00
6/4 x 8 and up No. 1 and better	70 00
8/4 x 8 and up No. 1 and better	72 00
6/4 x 6 and up No. 2 and better	61 00
8/4 x 6 and up No. 2 and better	63 00
6/4 x 6 and up No. 3 and better	55 00
8/4 x 6 and up No. 3 and better	59 00

No. 1 Cuts

1 in., 8 in. and up wide	50 00
1¼ in., 8 in. and up wide	59 00
1½ in., 8 in. and up wide	61 00
2 in., 8 in. and up wide	64 00
2½ and 3, 8 in. and up wide	84 00
4 in., 8 in. and up wide	90 00

No. 2 Cuts

1 in., 6 in. and up wide	36 00
1¼ in., 6 in. and up wide	47 00
1½ in., 6 in. and up wide	48 00
2 in., 6 in. and up wide	49 00
2½, 3 and 4 in., 6-in. and up wide ..	68 00

No. 3 Cuts

1 in., 6-in. and up wide	30 00
1¼ and 1½ in., 6-in. and up wide	35 00
2 in., 6-in. and up wide	36 00
2½, 3 and 4-in., 6-in. and up wide ..	45 00

Common and Dressing Mill Run

1-in. x 4 in.	32 00
1-in. x 5-in.	32 00
1 in. x 6 in.	34 00
1-in. x 8-in.	34 00
1-in. x 10-in.	36 00
1-in. x 12-in.	38 00
1-in. x 13-in. and up	38 00
1¼, 1½ and 2 in.	40 00

No. 1 Barn

1 inch	38 00	48 00
1¼, 1½ and 2-in.	45 00	51 00
2½ and 3-in.		55 00
4 inch		58 00

No. 2 Barn

1 inch	35 00	42 00
1¼, 1½ and 2-in.	38 00	44 00
2½ and 3-in.		46 00

No. 3 Barn

1 inch	32 00	36 00
No. 1, 1, 1¼, 1½, 2-in.		34 00

Box

No. 1, 1, 1¼, 1½, 2-in.	29 00	31 00
No. 2, 1½, 1½, 2-in.		26 00

Mill Culls

Mill run culls, 1-in.	27 00
1, 1½, 1½ and 2-in.	28 00
No. 2	24 00 26 00

Lath

No. 1, 32-in. pine	2 00
No. 2, 48-in. pine	5 00
No. 1, 48-in. pine	5 50
No. 3, 48-in. pine	4 50
Hemlock Lath, 48-in.	4 50

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac.

Dimension. S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14 & 16 ft.
2 x 4, 6, 8 ..	18 00	19 00	22 50	23 50
2 x 10	20 00	20 50	23 50	24 50
2 x 12	20 00	21 00	25 50	25 00

Dimension in the rough or surfaced one side 50c. per M. extra.

FIR, HEMLOCK, SPRUCE AND LARCH

Mountain Stock.

Dimension.

2 x 4, 8, 12, 14, 16	23 50
2 x 4, 10, 18, 20	25 50
2 x 6, 8 to 16	23 50
2 x 8, 8 to 16	23 50
2 x 10 and 8 in.; 24, 26, 28, 30, 32 ft.	31 50
2 x 10 and 2 x 12; 18, 20, 22 ft	28 50
2 x 10 and 2 x 12; 18, 20, 22 ft	30 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	32 50
No. 1 Common Boards.	
4 inch	23 00
6 inch	25 50
8, 10, 12 inch	27 50
Mixed widths	26 50
Flooring.	
4 or 6 inch No. 1	37 00
4 or 6 inch No. 2	32 00
4 or 6 inch No. 3	28 00
Shiplap—Finished.	
6 inch	24 00
8, 10 and 12 inch	25 00
Siding.	
6 inch No. 1	37 00
6 inch No. 2	35 00
6 inch No. 3	27 00
Lath.	
No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed) ...	4 50

PINE ROUGH TIMBER.

3 x 6 in.; 8 to 16 ft.	29 10
3 x 8 in.; 8 to 16 ft.	26 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	29 00
4 x 10 to 10 x 10, 8 x 8, 6x 12 in. up to 32 ft.	31 00

BRITISH COLUMBIA COAST FIR.

Dimension S1S and E.

2 x 4 in.; 4 and 8 ft.	22 50
2 x 4 in.; 12 and 14 ft.	23 50
2 x 4 in.; 10 and 16 ft.	24 50
2 x 4 in.; 18 and 24 ft.	25 50
2 x 4 in.; 22 and 24 ft.	26 50
2 x 4 in.; 26 to 32 ft.	28 50
2 x 10 and 2 x 12 in.; 10 to 16 ft.	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft. ..	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft. ..	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft. ..	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft. ..	30 50

FLOORING.

Nos. 1 and 2, 1 x 3 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in., E. G.	40 00
Nos. 1 and 2, 1 x 6 in., E. G.	37 00
Nos. 1 and 2, 1 x 4 in. F. G.	30 00
Nos. 1 and 2, 1 x 6 in., F. G.	35 00
No. 3, 1 x 4 in.	28 00
No. 3, 1 x 6 in.	33 00
No. 3 Edge grain $3 per M. extra.	

SHIPLAP.

B. C. fir, 6 in.	23 50
B. C. fir, 8, 10, 12 in.; 8 to 16 ft.	24 50
No. 2 shiplap, 6 in.	23 50
No. 2 shiplap, 8, 10 and 12 in.	24 50

FIR, COMMON BOARDS, S1S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	22 00
Common boards, 8 to 12 in.	23 00
No. 2 mixed widths	18 00
No. 2 boards, 8 to 12 in.	19 00

SHINGLES.

XXX B. C. cedar	3 05

LATH.

Fir lath, ⅜ x 1½ in. x 4 ft., bundled in 50's	4 50
Cedar lath, ¾ x 1½ in. x 4 ft.	5 00

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers, 4/4	$100 00
Uppers 5/4 to 8/4	100 00
Uppers 10/4 to 12/4	105 00
Selects 4/4	90 00
Selects 5/4 to 8/4	90 00
Selects 10/4 to 12/4	100 00
Fine common 4/4	70 00
Fine common 5/4	70 00
Fine common 6/4	70 00
Fine common 8/4	72 00
No. 1 Cuts 4/4	53 00
No. 1 Cuts 5/4	60 00
No. 1 Cuts 6/4	62 00
No. 1 Cuts 8/4	66 00
No. 2 Cuts 4/4	36 00
No. 2 Cuts 5/4	45 00
No. 2 Cuts 6/4	47 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	34 00
No. 3 Cuts 6/4	35 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	47 00
Dressing 5/4 x 10	52 00
Dressing 5/4 x 12	55 00
No. 1 Moulding 5/4	62 00
No. 1 Moulding 6/4	62 00
No. 1 Moulding 8/4	62 00

(Continued on page 52)

Overcrowding here causes ill-will and a waste of time. Often it's time youv'e paid for.

An over-loaded Time Recorder is as bad as an overloaded car. Hard on machine and users.

False Economy

Proper Economy

Don't Overload

Your International Time Recorders

The mental attitude of the employee when using the Time Recorder is worth considering. Experience shows it is better to "stream" them along rather than let them "bunch." This means having the proper equipment.

Say a firm spends $600 on a time recording equipment to serve 450 employees when they should have spent $1,000.

Saved $400 perhaps. Did they? What happens? The employees resent having to wait their turn at the Recorder. They may get into the habit of quitting a few minutes earlier in order to be amongst the first at the Time Clock. Suppose 450 people did this and lost an average of only 2 minutes each day. That means 15 hours, at say 40c, or $6 per day loss to the plant. Pretty heavy tax on a $400 saving, isn't it? Don't do it. An efficient Time Recording system is too important to be skimped.

We sell them on easy terms—they can save their instalments every month. Send for our latest folders and prices.

The International Time Recording Company of Canada, Limited

WINNIPEG
Geo. Morris, Sales Agent
400 Electric Railway Chambers

F. E. MUTTON, General Manager
28 Anderson St.
TORONTO
Toronto Phone—Col. 622.

MONTREAL
W. A. Wood, Jr., Sales Agent
Cartier Bldg., Cor McGill and Notre Dame Sts.
Phone—Main 7025

VANCOUVER—R. Donohoe, 305 Birks Bldg.

CURRENT LUMBER PRICES — Continued

No. 2 Moulding 5/4	52 00
No. 2 Moulding 6/4	52 00
No. 2 Moulding 8/4	52 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	36 00
No. 1 Barn 1 x 10	37 00
No. 2 Barn 1 x 6 and 8	33 00
No. 2 Barn 1 x 10	35 00
No. 3 Barn 1 x 6 and 8	28 00
No. 3 Barn 1 x 10	29 00
Box 1 x 6 and up	26 00
Box 1 x 10	27 00
Box 1 x 12	28 00
Box 1 x 15 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	36 - 38	23 - 25	14 - 16
5/4 to 8/4	42 - 45	28 - 30	16 - 18
10/4 to 16/4	48 - 52	33 - 35	20 - 22

RED BIRCH

4/4	50 - 52	30 - 21	18 - 20
5/4 to 8/4	54 - 56	32 - 34	18 - 20

SAP BIRCH

4/4	45 - 47	30 - 32	18 - 20
5/4 and up	50 - 52	32 - 34	18 - 20

SOFT ELM

4/4	37 - 39	22 - 24	16 - 18
5, 6 & 8/4	36 - 38	25 - 27	16 - 18

BASSWOOD

4/4	38 - 40	28 - 30	18 - 20
Thicker	40 - 42	30 - 32	20 - 22

PLAIN OAK

4/4	52 - 54	33 - 35	19 - 21
5/4 to 8/4	51 - 53	29 - 31	17 - 19

ASH, WHITE AND BROWN

4/4	46 - 48	26 - 28	17 - 19
5/4 to 8/4	56 - 58	31 - 33	18 - 20
10/4 and up	69 - 81	43 - 45	20 - 22

BOSTON, MASS.

White pine uppers, 1 to 2 in.	114 00
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No. 1, 1 x 10	49 00
No. 1, 1 x 8	46 00
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No. 2, 1 x 10	46 00
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No. 3, 1 x 10	41 00
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Spruce, 10 in. dimension	38 00
Spruce, 9 in.	37 00
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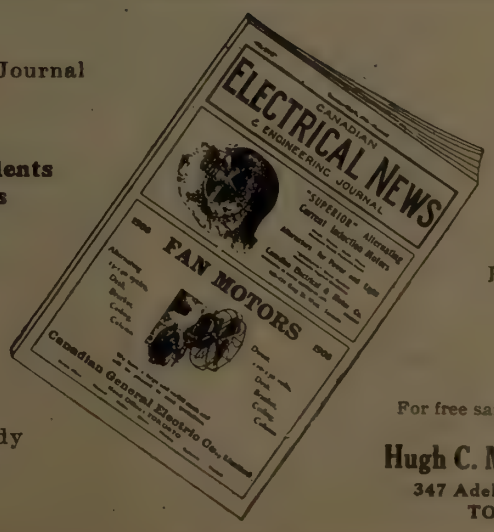

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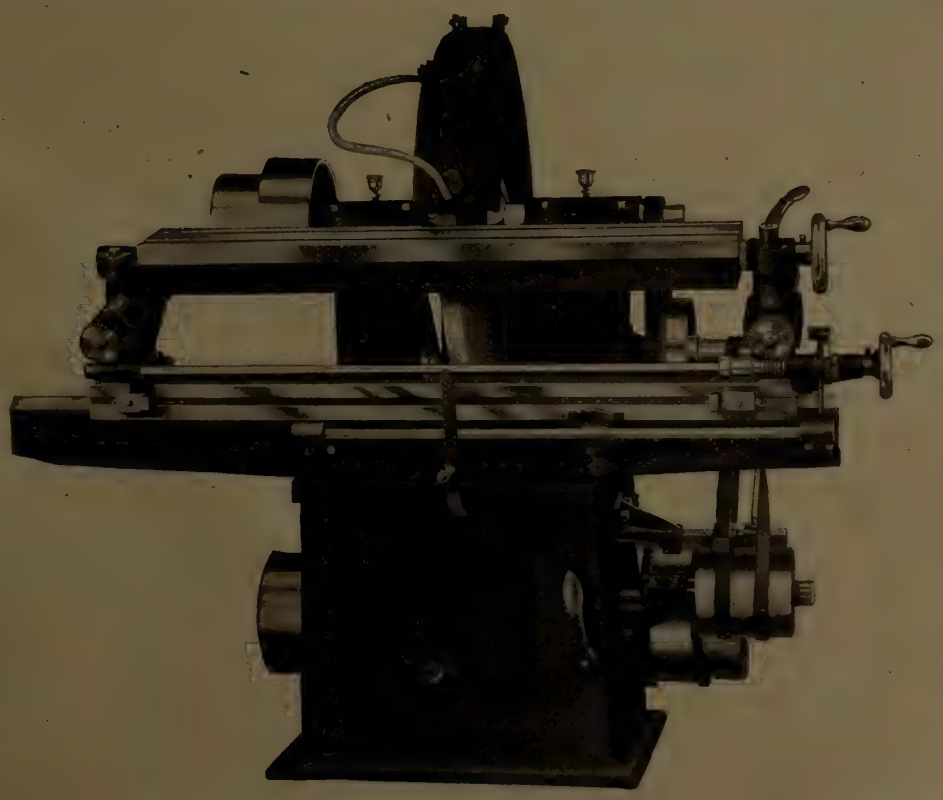

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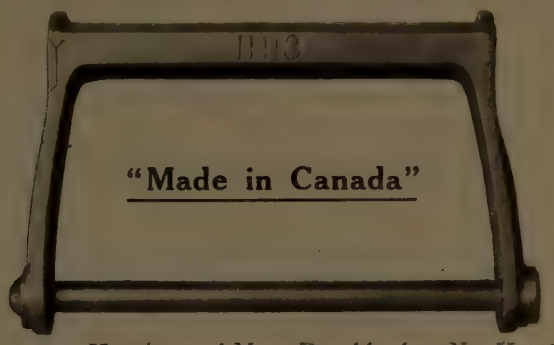

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Jeffrey Manufacturing Company.
Long Manufacturing Company, E.
Machinery Company of America
McLennan Foundry & Mach. Works
Parry Sound Lumber Company
Payette Company, P.
Smith Foundry Company.
Waterous Engine Works Company
Yates Machine Co., P. B.

SHINGLES
Bathurst Lumber Company
Blanchard Lumber Company
Campbell-MacLaurin Lumber Co.
Canadian Western Lumber Company
Fraser Limited
Gillespie, James
Harris Tie & Timber Company
Heeney, Percy E.
Long Lumber Company
McGibbon Lumber Company
McLennan Lumber Company
Terry & Gordon.
Timms, Phillips & Company
Vancouver Lumber Company
Victoria Lumber & Mfg. Co.

(Continued on page 60)

The Babbitt Metal that's at the Front in Efficiency and Economy

HARRIS HEAVY PRESSURE

"The Babbitt Metal Without a Fault," is guaranteed to give EXCELLENT SERVICE. It will not crack or squeeze out. It will run cool at any speed. It is copper. coated and copper hardened. It is best for all general machinery bearings. Order a box from our nearest factory.

It is Made in Canada. What We Make We Guarantee.

We Manufacture All Grades of Babbitt Metals.

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The unusual pliability of Spartan Leather enables the belting to operate successfully on short centres—hugging the pulleys tightly, thereby transmitting maximum power most economically on the hardest quarter-turn drives.

To insure highest efficiency Spartan-equip your hard drives.

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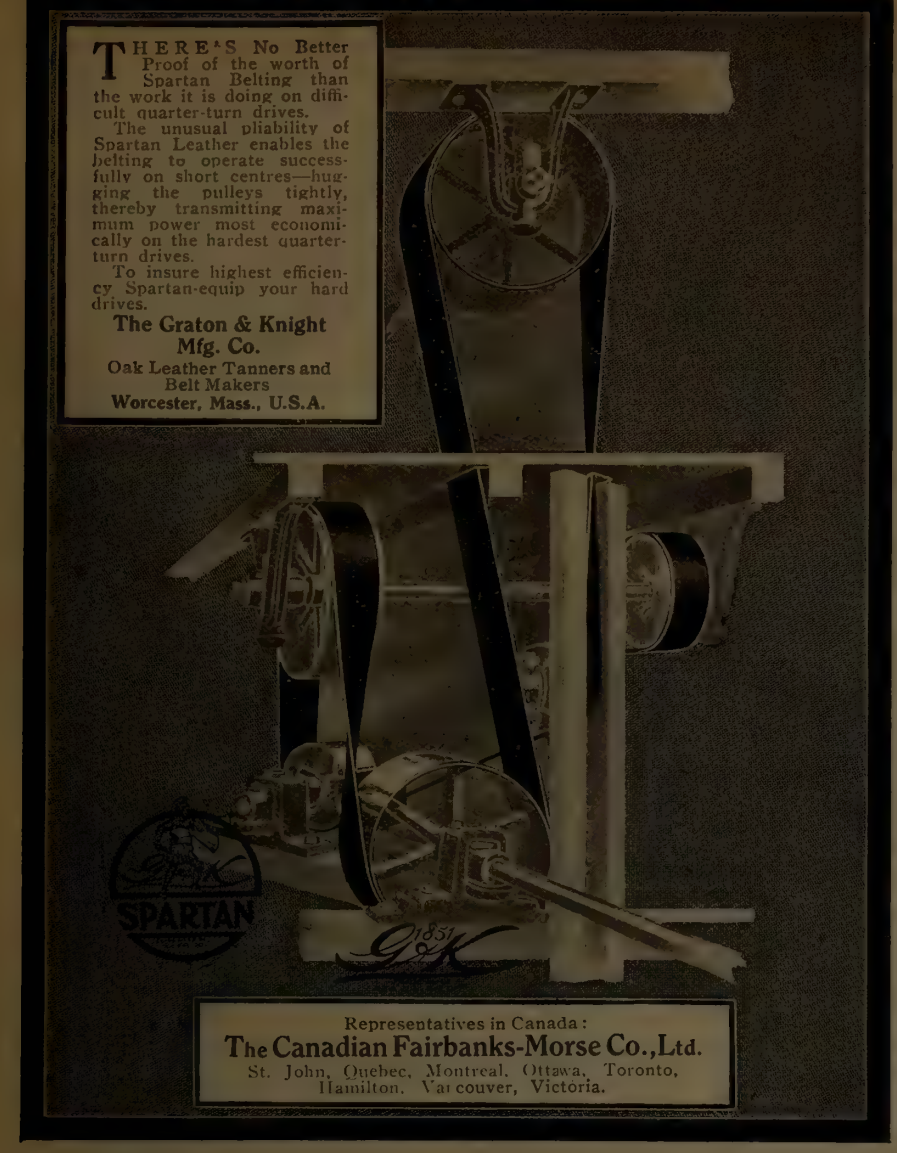

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Differs in Quality and Variety

For instance, a certain quality or kind of brick that gives satisfaction when used in a Refuse Burner, may show up poorly if used in a Dutch Oven.

It all depends on getting the right kind and the right quality for your particular needs.

Just tell us what you want it for, and we'll send a fire-brick that was made for that very purpose.

We Manufacture the Following Well-Known Brands

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Write for a copy of our Catalog.

"Refractory Efficiency Engineering"

Elk Fire Brick Co. of Canada, Limited
HIGH GRADE FIRE BRICK and CLAY
Sun Life Bldg., Hamilton, Canada

Representatives for Maritime Provinces:
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Branches at Halifax, Sydney and New Glasgow, N.S.

THE positive uniformity of grit and grade—the certainty of duplicating successful wheels—has made the Aloxite Saw-Gumming Wheel the standard of many a big sawmill.

Once you get the right wheel in the right place, once you let us send you an

ALOXITE SAW-GUMMER

—the wheel that will cut free, fast, and cool without case-hardening the saw—you can rest assured of getting another just like it—a dozen or a hundred more, as like as two peas in the pod—Aloxite—the wheel for steel.

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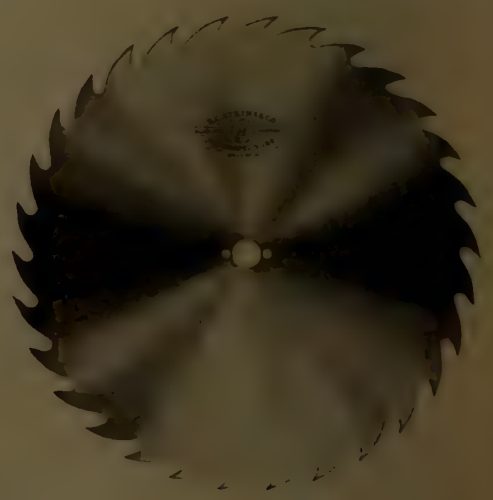
The most advanced improvements in Saw manufacture have placed us far ahead in the manufacture of Saws for all uses

Our Band and Circular Saws are worthy examples. They cut more timber—do it with less power and require less repair to be kept in perfect condition.



Economy in mill operation has proved their value. Put them through competitive tests with other Saws.

The Sterling quality of

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will overcome your difficulties.

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A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog "H."**

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"ASBESTOL" Mittens permit free wrist motion. The palms are soft and pliable, and enable you to perform your daily duties with ease and comfort.

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Look Like Silk
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Logging locomotives face different conditions. They must work day after day in the hardest service, and often in localities where repairs cannot be made without great inconvenience. That is why we build our logging locomotives from interchangeable stock parts. With this system every part must fit every other locomotive of the same size and design, and long delays waiting for duplicate parts are avoided. Interchangeable parts kept on hand at our Works for prompt shipment

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No. 2 Lath Machine

WE have brought out our No. 2 Lath Machine with the view of meeting that ever increasing demand of mill men in Canada for a light, medium capacity Lath Machine, that will turn out a first quality product.

Made with a one piece frame just as our larger No. 3 Machine. All the parts are strongly constructed and have that easy accessibility that we have made a feature of all E. Long Company Machines. We believe this very feature has done a great deal to make the machines so popular with the trade.

Just as with our larger machine, the saws are adjustable for ordinary lath or for pickets, staves, etc. In fact this machine will turn out work an exact counterpart of the No. 3 Lath Machine, except in quantity. We shall be glad to give you further details and prices.

SEND FOR CATALOGUE No. 102

The E. Long Manufacturing Company, Limited

ORILLIA - - ONTARIO

An Edger for 6" Cants

You can put a 6-in. cant through this edger and know that it will come through edged to a hair. Edger carries 22-in. saws, 6-in. saw collars, leaving 7-in. clear saw blade, more than enough margin for 6-in. stock

Mandrel is 3⅞-in. in diameter, the three bearings that support it are each almost 10-in. long—the rest of the machine is built in proportion. That's why Waterous New Champion Edgers can be crowded to the limit and will turn out full capacity, day after day, without straining.

Notice the feed rolls, two before and two behind the saws. They are machine fluted to give a firm, secure grip on the timber that holds it fast, but will not mar it in any way.

We build up-to-date Machinery for Sawmills of every capacity—circular or band

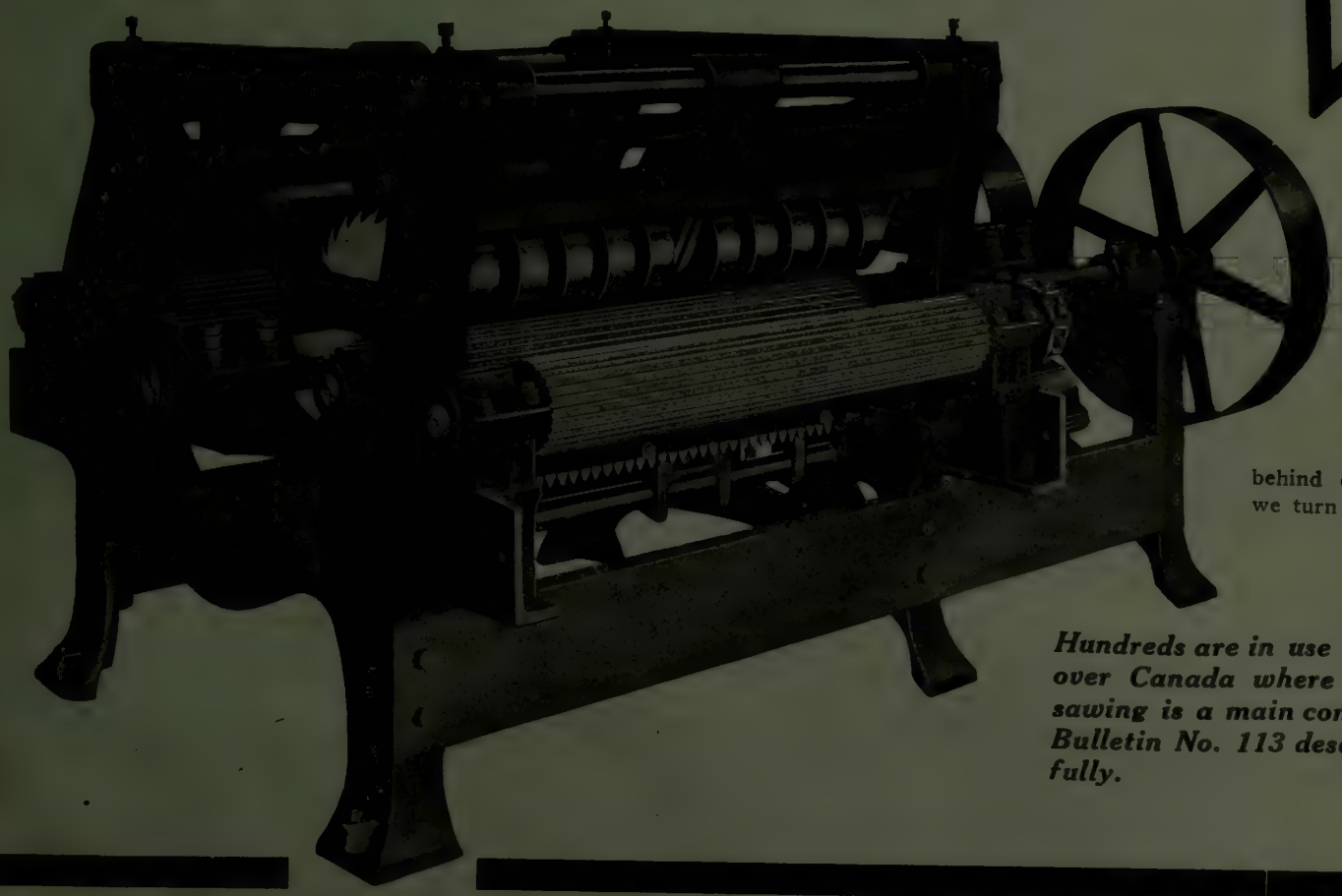
Catalogues on request

The press rolls are divided, too, making both sides of the machine independent of each other. It's a worth while feature, decidedly.

WATEROUS NEW CHAMPION EDGERS

are built with 40", 48", 56", 60" and 72" opening. They carry as many as four movable and two stationary saws without difficulty.

These edgers cut true and to dimension at all times. The guides are rigid and cannot shift in the cut. They are crowded to correct position and held immovably in place by a steel setting gauge that drops upon them. *No other edger has this feature.*



Waterous New Champion Edgers are fast and accurate cutting, easily operated, and perfectly safe. We stand behind every machine we turn out.

Hundreds are in use in mills all over Canada where quality of sawing is a main consideration. Bulletin No. 113 describes them fully.

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If your dealer does not stock FROST KING send us a money order for your requirements. Price 30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

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Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

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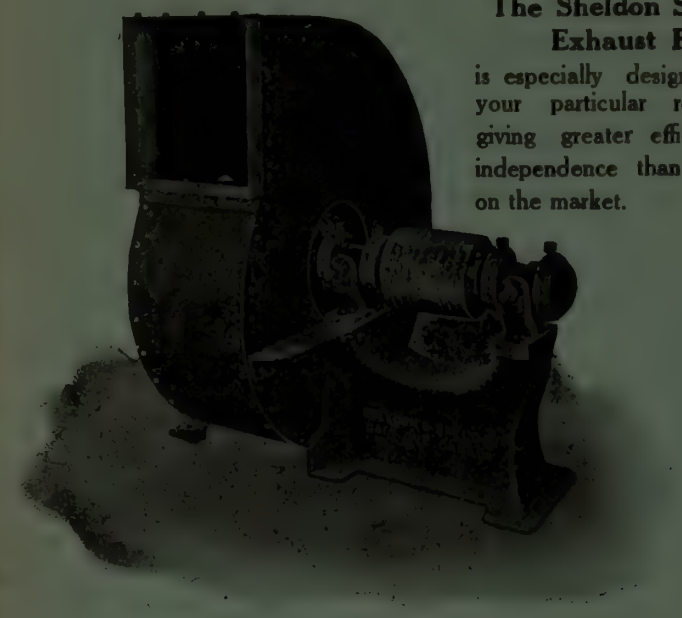
Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



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